DOCUMENT RESUME

ED 340 835 CE 059 373

AUTHOR	Mohanty, B. B.
TITLE	Adult Education: Some Reflections. Series 173.
INSTITUTION	Indian Adult Education Association, New Delhi.
PUB DATE	89
NOTE	141p.
AVAILABLE FROM	Indian Adult Education Association, 17-B Indraprastha Estate, New Delhi 110002, India ($3.00).
PUB TYPE	Reports - General (140)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Adult Education; Adult Literacy; Audiovisual Aids; Citizen Participation; *Citizenship Education; *Communications Satellites; Cultural Awareness; Developing Nations; Distance Education; Foreign Countries; Illiteracy; Lifelong Learning; *Literacy Education; Mass Instruction; Material Development; Nationalism; Newspapers; Nonformal Education; Rural Areas; Technological Advancement; Voting
IDENTIFIERS	*India

ABSTRACT

This book is a compilation of 12 articles and papers on topics of relevance to adult education in India. "Nonformal Education in the Learning Society" highlights the importance of this type of education. "Adult Education in India" presents one educator's views about this topic, the size and dimensions of the problems, and the ways and means to tackle them. Other articles offer his views on a variety of subjects under the headings of: "Resource Development for Adult Education"; "Adult Education and National Integration"; "Civic Education"; "Voters' Education"; "Scientific Temper" (on the popularization of science and technology); "Rural Newspapers" (on their role in lifelong learning and post-literacy); "Publication and Distribution of Followup Materials"; and "Audio-Visual Materials for Adult Education and Library Services." A paper called "Adult Education Software for INSAT" discusses satellite communications, direct broadcasting, television, the Indian National Satellite (INSAT), communication support for adult education, India's Satellite Instructional Television Experiment, software planning, the production process, and software formats. The final article, "Communication Technology for the National Literacy Mission" addresses the issues identified for the success of the mission, strategy, communication components and inputs, and the future. Each article or paper concludes with a list of references. (YLB)

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Indian Adult Education Association

Adult Education : Some Reflections

B.B. Mohanty

Indian Adult Education Association
New Delhi-110002

Published by
INDIAN ADULT EDUCATION ASSOCIATION
17-B, Indraprastha Estate,
NEW DELHI-110002

Rs. 25.00 ; US $ 3.00

Series 173

1989

Printed at
Vashist Printing Press,
Bhajanpura, Delhi-110053

In loving memory of my father-in-law, Bapi,
and my son, Papa, who are always with us.

Foreword

"Adult Education : Some Reflections", by Professor B.B. Mohanty, is an interesting book, which reflects the author's long experience in the fields of community development, adult education and communication. He started taking keen interest in social welfare activities since his school days. He was associated in one capacity or the other in all the major plans and programmes for Adult Education during the past four decades.

Professor Mohanty started his career in the Community Development programme in the early fifties. He has been a a journalist, editor, trainer, communicator, writer of literature for neo literates and producer of plays on developmental themes. He was the Unesco Expert in Community Development in Indonesia, UNICEF Consultant in Afghanistan, Unesco Resource Person in Vietnam and the Rotary Foundation Volunteer-Consultant in Jamaica. He was the Director of the State Resource Centre for Adult Education in Orissa, before he came to the Indian Institute of Mass Communication, New Delhi, as the Professor and Head of the Department of Audio-Visual Communication, the position he holds at present. He was the member of the Planning Commission Working Group on Adult Education for the Seventh Five Year Plan. He has been associated with the Indian Adult Education Association for a long time, and has been on its Executive Committee since 1978. His long involvement in education and development provided him opportunities and insight to write on various facets of education in general and adult education in particular.

At our request, he agreed to present some of his articles in the form of a book for publication on the special occasion of the Golden Jubilee of the Indian Adult Education Association.

In this volume, the reader will find twelve stimulating and thought provoking articles on important topics of relevance and considerable significance to Adult Education. He has highlighted the importance of Non-formal Education in the Learning Society and has given his views about adult education in India, the size and dimension of the problems and the ways and means to tackle them. The reader will be delighted to read the author's original, interesting and useful views on a variety of subjects like Resource Development for Adult Education, Adult Education and National Integration, Civic Education. Voter's Education, Scientific Temper. Rural Newspapers, Follow-up Materials and electronic media. Finally he has dealt with the Communication Technology for National Literacy Mission, for the success of which we are all committed.

Indian Adult Education Association is greateful to Professor Mohanty for the publication of this book. We hope that all those who read this book will find it stimulating and useful.

New Delhi,
May 1989.

J.C. Saxena
Honorary General Secretary
Indian Adult Education Association

Prologue

I hail from a small village named Kesol in the district of Cuttack, Orissa. It is served by the sub-post office at Tyandakura (PIN. 754134). Kesol is a picturesque village situated on the bank of a rivulet Suk Paika, which is fed by the mighty river Mahanadi. I have spent my colourful childhood in this village where I have my roots. My home is here.

My formal schooling began in 1939 when I joined the Tyandakura Middle English School in Class-IV. In those days, it was the only one of its kind in a huge area with a radius of about ten kilometers. It was in the vanguard of the Boy Scouts movement and was a model school in the district in many ways. Our school had pupils from different castes and religious groups. In the four years I spent in the school (1939-42), there was not a single occasion when I was ill treated by any of my class mates or school mates. We were like brothers and sisters in a big family.

In 1943 I had to leave my village to join a High School. After completing my matriculation in 1946, I have had the good fortune of studying at Calcutta, Gandhigram (Tamilnadu), London, Elsinore (Denmark), Wageningen (The Netherlands) and Cleveland (USA), but my early schooling at Tyandakura in a peaceful rural milieu has always provided the experiences and insights necessary for an in-depth study of any rural problem. I distinctly remember how a teacher in the local Maktab taught us the Dohas of Tulsi Das. The village fairs, festivals, folk dances, and operas, have enriched my experience, besides making my village life memorable. During my childhood itself I had realised the realities of life, be they in the field of education or health care.

It is just by chance and that after obtaining my M.Sc. degree in Radiophysics and Electronics from the University of Calcutta, I joined the Community Project in Junagarh, Kalahandi District, Orissa, in 1954, as an Audio-Visual Education Officer. From the very start, I was involved in social education, a completely new field for me. I was familiar with audio-visual hardware, but had to prepare myself for a challenging career in the field of social education. It involved very hard work. My rural background was very useful. Thus began a new journey; it had been a long one but I have never looked back and regretted. By 1960, I was deeply involved in social education and community development and the involvment continues. It has been reinforced by my participation in training programmes, seminars and the workshops and conferences, both in India and abroad; by my long association with the Indian Adult Education Association, and the support and encouragement I have received in abundance from my family and friends.

After completing my 45-month Unesco mission in Irian Jaya, Indonesia, when I was looking for a challenging assignment in India, I was advised by Mr. Anil Bordia, the then Joint Secretary in charge of adult education, in the Ministry of Education and and Culture, to organise a State Resource Centre for Adult Education in Orissa, under the auspices of the Utkal Navajeevan Mandal, voluntary organisation of repute, based at Angul, in the district of Dhenkanal, Orissa. On 11 August 1978, the SRC was established at Angul. I was the founder-director of the SRC for more than six years. I owe a word of gratitude to Mr. Bordia for his help, advice and encouragement during these years. Today the SRC does not exist at Angul. It was closed down on 31 March 1987. That is a different story. However, a new SRC has been established at Bhubaneswar, as a registered society under the auspices of the Government of Orissa.

Writing has been hobby since childhood. Today it is a professional need. I enjoy writing even under terrible pressure. As the director of the SRC, Orissa, I used to write occasional articles and papers on adult education for newspapers, magazines and for presentation at conferences and seminars. The present book is a compilation of ten such articles ond papers written between 1978-84, and two papers written in 1988.

I have not edited the articles and papers, included in this book, with a view to update them because each one has something to say in a particular time-frame, and it is necessary to maintain the historical perspective. Let me emphasize here that the way adult education programme has been developed and implemented during the past one decade both in India and other Third World countries, has been, and should be, a subject for in-depth study and analysis. While going through the book, one is bound to come across repetitions in ideas, contents, and even of quotations from other sources. Apart from the value of repetitions, which contribute towards learning, each individual chapter has been allowed to retain everything in it so as to make it as complete as possible, specially when the chapters do not follow a rigid structural sequence.

Between December 1984, when I left the SRC, and now, there have been many developments in the field of education. Distance learning systems for nonformal education are no longer mere concepts; there are concrete educational programmes offered by by our open universities, particularlarly the Indira Gandhi National Open University. Distance education, having immense potentialities, has to come to the rescue of adult education. Now there are 18 SRCs catering to the needs of the entire country.

The idea of compiling some of my articles and papers in the form of a book became alive when we were planning to have a series of publications on the occasion of the Golden Jubilee of IAEA. Mr. J.C. Saxena, Honorary General Secretary of the Association encouraged me to go ahead with the proposal so that the book sees the light of the day during our Golden Jubilee celebrations. I am grateful to him for his encouragement in the matter, and for so kindly writing a foreword to the book.

Mr. S. Brahmachari, Senior Artist at the Indian Institute of Mass Communication deserves my thanks for preparing the the cover design for the book. I am also thankful to Mr.

Krishnamoorthy, Associate Professor at the Institute for suggesting "Adult Education : Some Reflections" as the title for the book.

And I thank the Indian Adult Education Association for publishing the book during its Golden Jubilee celebrations.

New Delhi, B.B. Mohanty
May 1989

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1

Nonformal Education in the Learning Society

There is no viable correlation between what the schools and colleges teach and what life needs. Some critics consider the formal educational system as outdated and ineffective and advocate for its abolition; yet others propose that since schools must be brought closer to life, they should be suppressed. Both Reimer and Illich, architects of the de-schooling doctrine, say that the school is not capable of giving the pupils knowledge and that they should have equal rights with their teachers; the pupils themselves should be able to determine what and how they learn. Yusuf O. Kassam (1977) considers the assault on formal schooling as multidimensional. It is held that schools teach largely useless and irrelevant knowledge to the young; that they promote competitiveness and discourage co-operation; that they lead many to equate education with schooling; that they kill the desire to learn in children and alienate them from their society; that they are isolated from the community; that they stifle creativity and the development of an inquiring mind; that they are examination ridden, and so on. Formal schooling perpetuates 'a hierarchy of power and privilege in society' of maintaining the control of the ruling elite, of promoting class stratification and discriminating against the working and underprivileged class !

How has the school developed during different periods in different societies? School, derived from the Greek 'skhole', means leisure and was originally a place of rest where instruction was given in reading, and this necessitated the presence of a master in a class room. Instruction was carried on through a unipolar process in which knowledge flowed from the master to the pupils in a strict and authoritarian atmosphere. This situation still prevails in many countries of the world.

Education in Asia developed out of a similar pattern. The Chinese mandarins had a great respect for the written word. The Chinese educational system, charged with the responsibility of training the State officials was initially more open and liberal, but later on became very formal and rigid. Lifelong training was the most important feature of education in ancient Persia. In ancient India, the boy used to be sent to the Gurukula or Ashram where he used to live with his Guru and set in tune with the Ashram life. All the activities in the Ashram, including the disciple's services for the Guru, were directed towards one goal and that is the education of the disciple. This system of education was existing in India even prior to 500 BC. The Gurukula or Ashram, besides being a centre of education, was also a centre of spiritual learning for the pupils. Under the Buddhist systym of education, emerging 'as a reaction against the Brahmanical doctrine of caste and their monopoly of education', the monasteries became the centres of learning. Both the Gurukula and the Buddhist systems were equally rigid, and were satisfying the requirements of the community. In his book, 'Education in India'. A.L. Mudaliar writes : "It would not be correct to say that education during this period was purely of an intellectual type did not take note of the requirements of the community. The education imparted to the Kshatriyas and Vaishyas although it included the study of the Veda, to a certain extent also took note of the requirements of these communities to pursue their technical skills."

In ancient Greece and Rome, schools were highly respected and their ideals were to 'form harmonious personalities with balanced intellectual, aesthetic and physical development'. "The educational system was designed for and confined to the elites".

Informal Education in Africa

The traditional African education is best described by

Mwalimu Julius Nyerere as follows : "The fact that precolonial Africa did not have 'schools' except for short periods of initiation in some tribes did not mean that the children were not educated. They learned by living and doing.........Education was thus 'informal' : every adult was a teacher to a greater or lesser degree. But this lack of formality did not mean that there was no education nor did it affect its importance to society."

The church and education, with few exceptions, meant one and the same thing in Europe in the Middle Ages. Education was capable of 'adapting itself to the particular purposes of princes and merchants, clerks or warriors'. During the Moslem rule in India, the system of education went through a lot of changes. Mosques were established all over the country and they became the centres of instruction and of literary activity. Medieval education in Europe, Asia and Latin America responded to the requirements of the feudal societies and religious ideas.

Continuous Dialogue

Over the last few years, there has been a continuous dialogue about the crisis in education. Philips H. Coombs, in his 'The World Educational Crisis', raises the problem of escalating costs as the major element in the crisis; and Everett Reimer also warns that, no country in the world can afford the kind of education it wants in the form of schools: There is also the crisis of confidence in the school system. In 'Education for Self-Reliance',Julius Nyerere has analysed the educational crisis in Tanzania as follows: "The schools did not relate to society: they dealt in arcane knowledge rather than in the transmission of practical skills, their urban, consumerist and anti-manual work values made them appear as pass-port centres for the fortunate few who escaped from rural to urban areas: their escapist orientation caused rural poverty and they did not serve the purpose of Tanzania".

Gandhi's Basic Education system was both a curative as well as a preventive measure for similar drawbacks in the Indian educational scene in the thirties. In Gandhi's own words; "The higher he (the student) goes, the farther he is removed from his home So that at the end of his education he becomes estranged from his surroundings".

W. Senteza Kajubi, in his stimulating paper 'Is the School an Obsolete Institution' says that the most serious limitation of the school in developing countries is that it can reach only a small proportion of the school population and that the result is often a small powerful elite on the one hand, and an uneducated important majority on the other. Ronald Dore, while quoting a document of the Shri Lanka Ministry of Education, indicates the same kind of problems : "It is widely felt that the highly 'academic approach' associated with present school-curricula tends to alienate pupils from the realities of the employment situation......They learn little about the productive possibilities of agriculture; horticulture and small scale industries and partly for this reason seek white collar work." Such criticisms against the school system apply to most of the Third World Countries.

Close Ties

Efforts have been and are being made to make the schools more relevant to the needs of their communities. As the Faure Commission observes in 'Learning to be': "The establishment of close ties between schools and their milieu is a top priority in countries which view the education system as a vast mass movement, where each individual who has received an education has civic duty to teach those who have been denied learning opportunities." This is particularly so in the context of the Cuban literacy campaign and in the Democratic Republic of Vietnam with its dynamic people's education programme. Leon Vandeermeersch, in a document entitled 'Educational Reform—People's Republic of China', writes : "The linking up of educational institutions to the dynamic sector of society, whether in the economic sense, the production sector, or in the political one that of the proletariat, is designed to create conditions of the most complete interdependence of every teaching unit and the socio-economic collective on which it depends, in such a way that one and the same spirit quickens productive work on the one hand, and on the other the new culture that is forming. The main formula for this interdependence is a triple alliance, which at every level organically unites first the revolutionary representatives of the proletariat, then the political and military leaders and finally the teachers and learners."

Galena Guilavogui, Minister of Pre-University Education and Literacy of Guinea, discussing on the basis of the educational reform in the Republic of Guinea, says : "The school has become the prolongation of our society's economic, social, cultural and historical programme......This means that the school in Guinea does more than instruct—it takes over the education in depth of the country's youth in the ways of revolutionary progress and ties in all school activities with productive work, with the task of transforming nature through bold educational methods, and above all makes ideology as the science which must dominate, guide, justify and orientate all efforts in the acquisition of the diverse techniques which are no more than the media through which the ideology works. At each level, therefore, the school takes its place in the life of the local community, and fits into its regular curriculm its own contribution to the development of the locality."

The success of the community schools in accelerating the community development programme in the Philippines is well known.

Education and Social Change

There is also another view that too many untenable claims have been made for education. The school has continued to assume many new responsibilities. Besides acting as the guardian mentor and instructor of the pupils under its charge, it has accepted responsibilities for the families and the social and and the religious organisations in the community. According to this school of thought, education by itself, cannot bring about social change; it is a necessity, but not a sufficient condition for change. G. Chaman and L. Gilchrist have this to say in 'What school is for ?' "Schools are not sources of social ills, but rather a faithful reflection of ills stemming from society at large." As Philip H. Coombs remarks: "Put differently, the lesson is that any one vital ingredient of development (such as education) standing by itself has low productivity, but when it is fused with complimentary ingredients in a favourable setting, its productivity—and theirs is greatly increased." He further emphasizes the approach that education is not to be viewed only as a development objective in its own right, but as a powerful and necessary means for achieving other development objectives under conditions of rapid social and economic change.

This approach, although appreciated in many Third World countries, has not been put into practice effectively. In many parts of the Third World the schools and communities are completely isolated from each other. The curricula followed in the schools do not reflect the needs of the communities, and it is a paradox that many parents and community leaders do not favour any curriculm reform. Most of the teachers engage themselves in village politics and encourage factions within the communities, thus, helping to widen the gap between communities themselves, nor the teachers realize and appreciate the educational and financial resources of the communities. Therefore, the school, in many instances, is yet to become the miniature community of the future.

Rediscovery

While the term 'Nonformal Education' is new, the thing itself is not. It is the rediscovery of an old and tested truth that education takes place in a multiplicity of locales, that it involves discussion and mutual sharing rather than lectures and discourses, that it is continuous with all of one's life and it can be tailored to the needs of different ages, groups and professions in society. Even to-day, both in the developing and the developed countries, the major part of a person's education takes place outside the four walls of a class room. It will be safe to guess that a small proportion of all that an educated man has learnt in terms of concepts, skills, and information comes to him through formal sources. V. V. John says that "when it comes to the more imponderable consequences of education, such as what it does to the character and attitude of the educated, as distinguished from the conscious proficiencies acquired, the contribution that nonformal learning makes would normally be greater than anything that formal education could claim credit for. There is a hidden curriculum beyond school far more encompassing than anything that school consciously or otherwise provides."

Education being a sub-system of society, it is impossible to treat formal, nonformal and informal education as rigid watertight compartments. Within the formal system itself there are institutions which have several characteristics of nonformal education. The Faure Commission, while innovating and envisaging fundamental alternatives to the very concepts and structures of education, recommends the following in its report "Learning to be" : "Every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the keystone of the learning society."

"The dimensions of living experience must be restored to education by redistributing teaching in space and time."

"Education should be dispensed and acquired through a multiplicity of means. The important thing is not the path an individual has followed, but what he has learned or acquired."

'Adult Education in the context of Lifelong Learning' was the theme of the 3rd World Conference on Adult Education held in Tokyo under the auspices of UNESCO in 1972. It posed a number of important questions and suggested a fair number of valid answers. In the challenging words of its Final Report : "Experience shows that the provision of more education in most communities tends to favour most the already well educated; the educationally underprivileged have yet to claim their rights. Adult Education is no exception to the rule, for these adults, who most need education have been largely neglected—they are the forgotten people. Thus, the major task of adult education during the Second Development Decade of the United Nations is to seek out and serve these forgotten people."

A moral and spiritual one

Paulo Freiere's Pedagogy of the Oppressed is about the education of these oppressed people. According to him there is no neutral education, it is either for domestication or for freedom. Freiere's literacy process is a cultural action for freedom. The human word, in literacy teaching, is not mere vocabulary; it is word-and-action. In Freiere's hands literacy is a weapon for social change. Ivan Illich and Everett Reimer have suggested alternatives in education—alternative content, organisation and finance; alternative views of education itself, its nature, its role in the society of the future. This society of the future, by necessity, has to be a learning society. As V.V. John put it : "The goal of the learning society is not merely or mainly to keep the educated one's knowledge in continual repair; but the far nobler one of ensuring that no one in God's creation misses out on opportunities to develop the greatest of man's gifts, namely, the power to understand. The learning society is more than an educational concept—it is a moral and spirtual one."

In the learning society of the future nonformal education can provide a variety of educational opportunities to many more people and thereby reduce the mass-elite gap. Farmers, workers, small entrepreneurs and others who have never been to school—and perhaps never will—can get useful skills and knowledge through nonformal education, and thus contribute to their own and their nation's development. Secondly, nonformal education can play its role as continuing education and act as a supplement to formal schooling for the large number of primary and secondary school leavers, drop-outs and push-outs with a view to train them for productive employment. Thirdly, nonformal education can help to upgrade the skills and competence of those who are already employed.

Nonformal education is not and should not be the monopoly of the Central Ministry of Education and the State Education Departments. The Ministries and Departments of Agriculture, Cooperation, Health, Industries, Community Development and Rural Development have their programmes of extension education. The Agricultural Universities are showing their interest in nonformal education by organising Centres of Continuing Education. The Ministry of Information and Broadcasting and the Departments of Information in the States organise public information programmes. Both Akashvani and Doordarshan are interested in broadcast programmes on nonformal education. Our traditional media of communication, such as the Jatra, Pala, Daskathia, folk songs, folk dances, and folk festivals have a great communication potential for nonformal education in the rural areas. It is high time that we should have Distance Learning Systems for nonformal education.

The National Adult Education Programme, launched all over the country on 2 October 1978, is a massive programme of nonformal education for adults. To quote a Document on the NAEP: "This is the first time that the Government have decided to launch a well planned programme of adult education for such a large segment of the illiterate population. Planning for such a programme and its implementation will require support by a large variety of persons; including social workers, perspective planners, management experts, systems analysts, interdisciplinary teams of academics and, of course, adult educators." The Ministry of Education and Culture is also implementing an equally ambitious plan of a nonformal education programme for the children of school going age who are out of school.

Co-ordination of efforts of various departments and agencies at different levels is a must if nonformal education is to succeed. Training of personnel and production of need-based learning materials are equally important. But what is most important is that the capacity of the people should be developed so as to enable them to organise, manage and evaluate their nonformal education systems in the learning society of the future.

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2

Adult Education in India

Learning is an ancient tradition in India. The knowledge and wisdom gained by one generation has been passed on to the next generation through various types of institutions, both formal and informal, and several means of communication. This giving and taking of education has been, and is, going on.

As Sohan Singh put it : "We thus have the curious paradox that while India owes, among other things, many of the modes, methods and materials of modern adult education to her connection with the British, it is precisely this connection which hampered the growth of education in India in the 19th and 20th centuries. Indeed, the student of adult education in India will be struck by the fact that the rising or falling curve of adult education has been closely linked up with the fortunes of the national movement. Adult education prospered in India in measure as she recovered her soul and it can really be said to have come into its own, to some extent, when in 1937-38 popular Ministries took over the reins of Government for the first time, though for a brief period only, in the Provinces."

Before Independence

William Adam, on the basis of surveys conducted in Bengal and Bihar, had come to the conclusion that in 1836-37, the literacy rate in India was 6 per cent. The aims of the British educational policy in India were crystallised during the last twentyfive years of the East India Company's regime in India. The focus was "to impart to the native population a knowledge of English literature and Science through the medium of English language'', while completely disregarding the indigenous educational system.

It is obvious that the colonial rulers had very little concern for the education of adults. During the Industrial Revolution, when night schools were established in Englend, every British Indian Province had some financial provision to establish night schools for edults. According to the report of the Indian Education Commission (1882-83), there were 134 night schools in Bombay, over 1000 night schools in Bengal and 291 in Madras.

In the Central Provinces, Police Education Schools were set up during 1862-63; within 1865-66, there were two schools in each district. Mysore had the most signaificant adult literacy programme, launched in the beginning of the century, by Sir M. Visveswaraya, the State Dewan, with six to seven hundred literacy classes. The Vijnan, a magazine to popularise scientific knowledge was started by the Government, and systematic continuing education was organised.

There were non-governmental efforts, however sporadic, in acclerating the adult education programmes. Literacy was an important component in the rural reconstruction programme started by Poet Rabindranath Tagore in Sriniketan in 1921. It was his dream to change the face of rural India through a programme of rural reconstruction. In the same year, the YMCA, under the leadership of Dr. Spencer Hatch, organised a village development project, with literacy as an essential component, in Marthandam, Kerala. The Sevagram Project of Social and Economic Development was started in Sevagram, Wardha, in 1931. Adult Education was an important component of this project, which was imbued with the Gandhian philosophy of "Search after Truth". India's Country Paper to the Commonwealth Conference on Non-formal Education for Development (Delhi, 1979) states : "Experimentation in the field of non-formal education in India can perhaps be traced to the programmes in the 1930s that sought to put into practice Mahatma Gandhi's concept of Basic Education which was aimed at making the learning activity more relevant to the functional needs of the learner and the community, thereby making the educational system responsive to the socio-economic matrix of the society." Several other Indian thinkers and social reformers like Swami Vivekananda, Swami Dayanand, Maharishi Karve and Rabindranath Tagore, had tried to bring about a synthesis of the Western and Indian value systems and cultures in the educational pattern.

There were also official attempts, prior to independence, made in this direction. In 1927, F.L. Brayne, a British member of the Indian Civil Service, evolved a village development programme, called the Gurgaon Scheme, in Gurgaon, then in Punjab, in which education and adult education were important components. In the same year, the Baroda Rural Reconstruction Movement was organised in the princely state of Baroda, under the leadership of V. T. Krishnamachari with the intiative and encouragement from the then ruler Maharaj Sayaji Rao Gaekyad.

New Era

In 1937, popular ministries were established in the Provinces, and thus started a new era in the history of adult education. The Government, for the first time, accepted adult education as a definite responsibility. Adult literacy programme was organised as a movement. The Central Advisory Board of Education, in its fourth meeting held in 1938, appointed an Adult Education Committee, under the chairmanship of Dr. Syed Mahmud, who was then the Education Minister of Bihar. Identifying adult literacy as the chief plank of the adult education movement, Dr. Mahmud, in his address to the Committee had said; "No Government can make any appreciable headway with its schemes for the promotion of socio-economic welfare of its people unless the people are prepared to meet the Government halfway and offer it responsive cooperation. This responsive cooperation is only fesaible when the people possess some amount of education."

The Adult Education Committee, in its report to CABE, besides emphasizing the importance of adult literacy, stressed the need for effective training of literacy teachers, motivation of adults, use of audio-visual media and post-literacy programmes for retention of literacy and continuing education. According to Anil Bordia, "the first five years of the period under review saw, not only a real break-through in the problem of eradication of illiteracy, but also the establishment of the most important voluntary organisations in the country." Sohan Singh writes that when the first national government came into being in 1946, the historic event started a new ferment in the field of adult education.

Social Education

The concept of social education emerged soon after independence. The Mohan Lal Saxena Sub-Committee on Adult Education, constituted by the Central Advisory Board of Education in 1948, said in its report "that although both literacy and general education form part of Adult Education, yet greater emphasis should be laid on general education to enable every Indian to participate effectively in the new social order." This concept was further developed by Maulana Abul Kalam Azad, the then Education Minister, who called it social education. In his words: "We may say that social education has three aspects, namely, (a) the induction of literacy among grown-up illiterates, (b) the production of an educated mind in the masses in the absence of literacy education, (c) the inculcation of a lively sense of rights and duties of citizenship, both as individuals and as members of a mighty nation. We may say, the social education is synonymous with adult education, but lays more-emphasis upon the two latter aspects of education." The concept of social education, when operationalised, included literacy, extension, general education, leadership training and social consciousness.

The Planning Commission of India, realising the necessity of social education, proposed that each of the 55 Community Projects, launched on 2 October 1952 all over the country, was to be staffed by one Chief Social Education Organiser and six Social Education Organisers to plan, and organise the social education programme in the project area. And this was implemented into action. As Sohan Singh aptly put it : "The close connection between education and social development had been foreshadowed in the concept of the Indian State as a welfare state. The Community Project provided a concrete shape for concept as well as an agency for its implementation."

The Committee on Plan Projects, while reviewing the objectives of social education, had observed : "The chief objectives of Social Education are to create a new outlook, new values and new attitudes on the part of the people : to impart new ideas and new skills, including literacy ; to energise people's organisations for group action, to provide healthy recreation, to give an impetus to the entire development programme by enlisting people's participation, and to build up local leadership. It is training and education in citizenship in the widest sense in a free and progressive Democracy." In order to achieve the objectives of social education, the following activities were taken up, within the overall community development programme :

(a) Organisation of literacy centres and conducting adult literacy classes
(b) Organisation of rural libraries
(c) Organisation of recreational and cultural activities
(d) Promotion of associate organisations
(e) Organisation of training programmes for functional leaders, school teachers and other volunteers
(f) Promotion of women and child welfare activities
(g) Education through audio-visual aids.

In short, social education was the educational counterpart of community development, although chronologically, it preceded the latter.

A special training programme was organised at the Allahabad Agricultural Institute for the 55 Chief Social Education Organisers. The Social Education Organisers were trained at the special institutions called Social Education Organisers' Training Centres, set up in various parts of the country. A National Fundamental Education Centre was established in New Delhi, in 1956, under the Ministry of Education, with substantial assistance from Unesco. Its functions, included, among other things, training of the District Social Education Organisers, research and evaluation, production of literature and dissemination of information and ideas relating to social education.

Encouraged by the success of the Danish Folk High Schools, India took the initiative in the Fifties in establishing similar institutions, called Janata Colleges (People's Colleges) in different parts of the country with a view to impart training to the rural youth. The first Janata College was established at Delhi with assistance from Unesco. An institute of Workers' Education was also established at Indore. The Janata Colleges in Karnataka, called Vidyapeeths, are still active in the field of adult education.

Some of the Indian universities like Mysore and Poona started taking interest in adult education through their extra-mural departments in the late 40s and 50s. The University of Delhi commenced its adult education programme in 1957. The University of Jaipur, Rajasthan, established its Department of Adult Education in 1960.

Innovative Programme

The literacy rate during the Third Five Year Plan increased from 24 per cent in 1961 to 28.5 per cent in 1966. It is argued by some that this increase in literacy rate was due to the expansion of primary education. However, a new direction was provided by the State of Maharashtra in launching an innovative adult education programme, called the Gram Shikshan Mohim (literally means Village Education Movement), in 1959. This had the built-in idea of taking the literacy movement to the people who accept it as their own. It aimed at the total eradication of illiteracy in the age group of 14-50 by "providing library services and other material for retention of literacy and at bringing about an all sided development of villagers through Social Education Centres". The importance of literacy was explained to teachers and villagers in a large number of meetings participated by educational and political leaders. All the educated persons of the area took part in an effective programme of instruction. The campaign used to last for about four months under the direction of the concerned village development committee and after the whole village became literate, a village festival was organised at which the village leaders and teachers used to be felicitated. Anil Bordia writes that during the peak years, 1961-63, the Mohim covered 25 districts and made all persons in the age group of 14-50 literate in 1109 villages. He further says : "Between 1961 and 1971 the percentage of literates in Maharashtra increased from 34.27 to 44 94, although the averge increase for all-India was from 27.76 to 34.08. However, an evaluation undertaken by the Planning Commission revealed that in Gram Sikshan Mohim relapse to illiteracy was massive due to insufficiency of post-literacy programmes and also that at some stages there was considerable misreporting of achievements." The Gram Shikshan Mohim was given an international literacy award by Unesco.

The National Policy on Education (1968), issued by the Government of India, on the basis of the Report of the Education Commission (1964-66), had identified seventeen important areas in Education, including Adult Literacy and Adult Education. The need for accelerating the programme of mass literacy and that of providing education to young practising farmers was emphasized. The World Education Ministers' Conference held in Tehran, in 1965 had also suggested for literacy to be linked with the vocation or work of the people. India launched its 'Farmers Training and Functional Literacy Programme' in 1967-68.

Functional Literacy

A unique feature of the Farmers' Training and Functional Literacy Programme was its integrated three dimensional approach—with the Ministry of Education responsible for the element of Functional Literacy, the Ministry of Agriculture for Farmers' Training and the All India Radio (Ministry of Information and Broadcasting) for Farm Broadcasting. The three activities were designed in a coordinated way to educate and inform illiterate farmers about the high yielding varieties of seeds and a package of improved agricultural practices. Teaching-learning materials were scientifically prepared and used along with farm broadcasts and both these were the inputs in farmers' training. This programme was evaluated by a Committee appointed by the Government of India in 1977. The Committee, while observing that the fundamental idea of integrating literacy with functional training, and the use of mass media as a communication support, was still valid, recommended "a substantial enlargement of the programme and widening of its linkage with the main schemes of rural development."

Nonformal Education

In 1975-76, another major programme, called Nonformal Education for the young people of 15-25 age group, was launched by the Government of India with a view to provide meaningful education to the young people. This was a need-based programme, which was intended to benefit the weaker sections of society, who had been denied the access to formal education. By the end of 1977-78, 60 districts had been covered under this programme, having 100 nonformal education centres for each district. This is an ongoing programme.

The Government of India have been promoting the involvement of voluntary agencies in adult education and nonformal education programmes since 1953-54. By 1976-77, only twentyfive voluntary agencies were engaged in the field of adult education. However, this number was increased after the National Adult Education Programme was launched.

The nineteenth session of the Unesco General Conferance, held in Nairobi, in 1976, had adopted a 'Recommendation on the Development of Adult Education' and had requested the the Member States to give effect to the principles set forth in the Recommendation, after bringing it to the attention of the authorities, departments or bodies responsible for adult education and also of the various organisations caryring out educational work for the benefit of adults, and of trade union organisations, associations, enterprises, and other interested parties".

In this Recommedation, "the term 'adult education' denotes the entire body of organised educational processes whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adults by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behaviour in the twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development :

"adult education, however, must not be considered as an entity in itself, it is a sub-division, and an integral part of, a global scheme for life-long education and learning ;

"the term 'life-long education and learning', for its part denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system;

"in such a scheme men and women are the agents of their own education, through continual interaction between their thoughts and actions;

"education and learning, far form being limited to the period of attendence at school, should extend throughout life, include all skills and branches of knowledge, use all possible means, and give the opportunity to all people for full development of the personality;

"the educational and learning processes in which children, young people and adults of all ages are involved in the course of their lives, in whatever form, should be considered as a whole."

NAEP

The National Adult Education Programme (NAEP), launched all over the country on 2 October 1978 (Gandhijee's Birth Day) had been considerably influenced by the above mentioned Recommendation, which was an international mandate. The Policy Statement on Adult Education was discussed by political leaders, educationists, adult education field workers and other knowledgeable persons. There was an emphasis "to change priorities in education—from a preoccupation with higher, technical and secondary education to a more balanced approach giving priority to elementary and adult education, without, however, underestimating the importance of the rest".

The ASPBAE Courier (No. 17, December 1979), in an article entitled 'India's National Adult Education Programme (NAEP)', which is based on India's Report to the Twentieth Session of the Unesco General Assembly (code 20 C/23 Add. 2 and dated October 1978), states : "In accordance with the principles set forth in the recommendations of the Unesco General Conference held in 1976, the Government of India has initiated a series of measures strengthening its national strategy for the development of adult education."

' In respect of definition of adult education; objectives and strategies content of adult education; methodology of adult education, research and evaluation, structure of adult education; training, orientation and preparation of persons engaged in adult education work; linkages of adult education with formal adult education, development strategy and work; management; administration, coordination and financing of adult education; and promotion of international cooperation for development of education, the Government of India's efforts have led to new adult education strategy in the form of a National Adult Education Programme, which represents an unprecedented massive effort of adult education linked to the country's developmental needs and objectives. The recommendation on the development of adult education adopted by the Unesco General Conference finds expression in the Policy Statement on Adult Education, issued by the Government of India and in the National Adult Education Programme, which has been planned in pursuance of this policy for implementation.".

The Policy Statement on Adult Education states : The present thinking on adult education is based on the assumptions : (a) that illiteracy is a serious impediment to an individual's growth and to country's socio-economic progress; (b) that education is not coterminus with schooling, but takes place in most work and the life situations; (c) that learning, working and living are inseparable and each requires a meaning only when correlated with others; (d) that the means by which people are involved in the process of development are atleast as important as the ends; and (e) that the illiterate and the poor can rise to their own liberation through literacy, dialogue and action."

Three Components

The National Adult Education Programme had three components : literacy, functionality and awareness. It was assumed that these three elements would be realised through a basic programme of ten months comprising of approximately 300-350 hours to be followed by a post-literacy and follow-up programme. The NAEP envisaged involvement of all official and non-official agencies which could contribute to its effective implementation. Voluntary agencies had been given an important responsibility in the programme. The programme also envisaged the involvement of schools, colleges and universities in the country.

The basic unit of the NAEP was an adult education centre, under the charge of a volunteer instructor. Thirty adult education centres were placed under a supervisor and a project of 60, 100, or 300 centres, located in a compact area was headed by a project officer. Each district had a District Adult Education Officer. Separate directorates of adult education had to be set up in the States and the central Directorate of Adult Education was to oversee the programme.

The Nehru Yuvak Kendras (Nehru Youth Centres), which were started in 1972 under a Central Scheme, became a programme of considerable relevance to the NAEP. A Nehru Yuvak Kendra is a district level organisation, which initiates meaningful programmes, including adult education for the young people. Thus, the Nehru Yuvak Kendras became important implementing agencies for the NAEP; the other agencies were voluntary agencies, State Governments and the Universities and Colleges.

State Resource Centres

Two State Resource Centres—one in Maharashtra and the other in Rajasthan—were established in 1976 itself under the auspices of voluntary agencies, but with the support of the Ministry of Education. And Literacy House, Lucknow, was designated soon thereafter as an SRC for Uttar Pradesh. The experience of these SRCs were available by the time preparations commenced for the NAEP. To-day there are sixteen SRCs in the country. The Directorate of Adult Education of the Ministry of Education & Culture acts as the National Resource Centre. The NAEP accelerated the pace and process of resource development for adult education, altough it preceded the former.

The Government of India established a National Board of Adult Education, soon after the decision was taken to launch the NAEP. State Boards of Adult Education and State Steering Committees on Adult Education were also established by the State Governments. The State Governments and the SRCs were to be advised by the respective State Boards of Adult Education.

Considerable importance was given in the NAEP to training of personnel and monitoring and evaluation. As Anil Bordia put it : "In view of the fact that the NAEP marked a significant advance in the conceptual framework, a thorough reorientation of the existing personnel and a systematic training of new personnel was essential." The State Resource Centres and the National Resource Centre organised various training programmes for different categories of personnel. The outline of the NAEP includes the following on monitoring and evaluation : "A mass education programme, inevitably, faces the risk of considerable wastage and misreporting. In this connexion the importance of systematic monitoring and evaluation can not be exaggerated. It must permeate the entire programme and should provide feedback for introducing necessary correctives from time to time." Monitoring and evaluation were organised through internal as well as external agencies

As on 30 June 1979, 94,000 adult education centres were operating in the country and by the end of January 1980, their number was 116,000. The enrolment in the adult education centres increased from 0.675 million in 1977 to 3.6 million in 1980.

Review Committee

In October 1979, just one year after the NAEP was launched, the Government of India appointed a Review Committee, under the chairmanship of Prof. D.S. Kothari, "to review the working of the NAEP in all its aspects, and to recommend any modifications that would improve its implementation, quality and impact; to recommend any change in the priority assigned to adult education that may be called for in the light of the review by the Committee; and to examine if any economy could be effected in the allocations for the NAEP by better implementation, and more effective participation of educational institutions and non-official agencies."

The Committee submitted its report to the Government of India in April 1980 (in January 1980, there was a change in Government) recommending a number of steps to be taken for improvement and strengthening of the adult education programme. The recommendations of the Committee were accepted in principle by the Government.

The adult education programme was included as an essential component of the Minimum Needs Programme in the Sixth Five Year Plan, and was also included in the 20-point Economic Programme of the Prime Minister. According to the Sixth Five Year Plan document, "The Sixth Plan lays emphasis on minimum essential education to all citizens, irrespective of their age, sex and residence. The approach to achieve this objective would be characterised by flexibility, inter-sectoral cooperation and inter-agency coordination. Technicracy would be adopted as the major instrument for the spread of literacy, numeracy and practical skills relevant to the economic activities of the people concerned. It would be supported by post-literacy, continuing education through a network of rural libraries as well as instructional programmes through mass communication media, particularly after the INSAT (Indian (National Satellite) is launched to its orbit."

One of the objectives indicated under the Minimum Needs Programme is "100 per cent coverage of adults in the age-group

15-35 by 1990 through non-formal education." Therefore, the Ministry of Education & Culture, Government of India, is designing and directing the adult education programme, accord-to the following guidelines :

"to cover districts having literacy rate below the national level and give priority to the target group of women, Scheduled Castes, Scheduled Tribes, migrant labourers and other weaker sections of the society, to improve their literacy position ;

"to enlist larger participation of students in the adult education programme as envisaged in the new 20-Point Economic Programme,

"to continue to provide grants-in-aid to voluntary organisations working in the field of adult education which have no communal leanings ;

"To strengthen post-literacy programme to avoid lapse into illiteracy of the neo-literates ; and

"to utilise the potential of electronic media and use folk media for motivational purposes."

The Working Group on Adult Education for the Seventh Five Year Plan, while formulating its report, was guided by the recommendations of the 39th meeting of the Central Advisory Board of Education, held in June 1983, and those of the first meeting of the reconstituted National Board of Adult Education held in November 1983. The Working Group has recommended a series of steps to be taken for making the adult education programme more dynamic.

Present Situation

There are about 110 million illiterates in the 15-35 age group. During the first three years of the Sixth Five Year Plan (1980-85), about 10 million adult illiterates were covered under the adult education programme and another 100 million would have to reach the literacy stage by 1990. It is safe to presume that during the Sixth Plan period itself, about 25 million learners would be made literate leaving the rest 75 million to be covered under the Seventh Plan period. This is not an easy task and will require substantantial stepping up of the programme, with particular reference to organisational aspects, implementation strategies, use of communications media, resource development and funding pattern.

The overall situation in the country, in terms of supporting institutions and agencies, mass media support, and the associated infrastructure, is more favourable to adult education, than it was before a decade or so.

The Indian Adult Education Association, an apex voluntary organisation of 43 years standing, devoted to the cause of adult education, and its member organisations are becoming more and more responsive to the needs of a dynamic adult education programme throughout the length and breadth of the country. The expanding programme of involving the students through the university system is a positive sign of support for adult education. The expansion in the communication infrastructure in India is sure to augment media support for adult education. The expanding networks of Television and Radio, through the INSAT-IB, are going to revolutionise communication in India, thus bringing a new dimension to mass education. The folk and traditional media of communication, are going to be utilised for the cause of a adult education in a much better way.

The Workers' Education Scheme, being operated through the Central Board of Workers Education and a network of seventeen Shramik Vidyapeeths (Polyvalent Workers' Education Centres) functioning under the Ministry of Education & Culture, is sure to cover a considerable portion of the illiterate labour force.

Many State Governments are showing more and more interest in the adult education programme as a result of the persuasive and coordinating efforts of the Central Ministry of Education & Culture, and are already in the process of introducing innovative measures into the programme. The State Governments have also become more responsive to the need for universalisation of primary education by taking various measures, including enrolment drives, midday meal schemes, etc., and are more and more involved in the programme of non-formal education of out-of-school children.

The State Resource Centres for Adult Education are going to be strengthened, both technically and financially, with a view to give better resource support to the adult education programme.

Therefore, the environment is quite favourable and with the necessary political commitment and political will, and international cooperation and technical assistance, India is sure to go ahead towards achievement of its objectives by 1990, so that by the turn of the Century, its literacy situation would be totally different.

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Resource Development for Adult Education

Resource development for adult education is a recent phenomenon in India. It has been recognised as a management tool, but its entry into the field of education, and particularly adult education, has been rather late. Systematic attempts in this direction began in 1976, and within the last nine years, resource development for adult education, as an educational innovation, has achieved a certain measure of success.

The genesis of the concept of resource development is contained in the following resolution of the Committee on Non-formal Education, which was endorsed by the Standing Committee of the Central Advisory Board of Education, in 1976 : "It is necessary that a resource centre is created by sponsoring a voluntary organisation or directly under the Government to organise training activities, curriculum development, preparation of diversified learning/instructional materials and other necessary services." Functions of a State Resource Centre were envisaged as follows : (a) Organisation of Workshops/Seminars/Conferences and publication of books/pamphlets for proper appreciation of the concept and significance of non-formal education, (b) Training of key personnel and assistance in training programmes organised for field functionaries, (c) Development of curricular programme to serve as a base for instruction/learning till regions/districts within a State develop this capability and organisation of training programmes, so that such capnbility develops as soon as possible, (d) Preparation of instructional/learning materials for the State till agencies at the regional/district level within the State are able to do so and organisation of training for development of such capability, (e) Evaluation of programme and technical guidance and (f) Such other activities as may appear appropriate to the State Government and/or the agency entrusted with the responsibility for establishment of SRC.

Resource development has its origin in systems analysis—that aspect of management science, which is used as a tool for planning, be it a simple activity, or a complicated project. In the systems approach, any productive system is viewed as a whole, so as to examine how its process functions with reference to its resource inputs and its desired outputs. Education is a sub-system of society and adult education is of course a component of education, whose output however has not been what was desired.

Adult education, throughout its uneven growth in India, has influenced and been influenced by the international developments in this field. In the early sixties, there was a global concern to do something about adult illiteracy. The World Conference of Ministers of Education on the Eradication of Illiteracy, held in Tehran, in 1965, recommended, among other things, that "adult education (and literacy in particular) should not be confined to elementary reading, writing and arithmetic, but should also include both general cultural subjects and a vocational preparation in which account is taken of the opportunities for employment and the better use of local natural resources and which would lead to a higher standard of living." Thus, the idea of functional literacy was born here.

A five-year experimental world literacy programme was initiated by Unesco in 1966 and eleven countries, including India, participated in it. The world literacy programme used the functional literacy approach, for which special types of learning materials were necessary. Adult education personnel needed a different type of training and built-in systems of evaluation were introduced in the programme. In other words, resource inputs were of a different type and had to be ensured for the timely implementation of the programme.

A Farmer's Functional Literacy Programme organised in India during 1969-74, as a part of the experimental world literacy programme, needed a host of learning materials geared to farming in various languages and required need-based training programmes for the programme personnel. The resource requirements were somehow met, but a distinct need for resource infrastructure was reflected. This was also the experience of earlier literacy programmes in India, including the social education programme under community development.

Thanks to UNICEF and the International Council for Educational Development, the concept of non-formal education was popularised during the early seventies. And in India, crystallisation of the concept of non-formal education and acceptance of a number of non-formal education programmes was a significant development. Decentralisation, both in planning and implemantation of programmes, is implicit in the concept of non-formal education as also an organised system of resource, not only developing from top to bottom, but vice-versa too.

India did not begin its resource developmant programme in adult education with a clean slate. During the hey-day of community development and social education in the fifties, a National Fundamental Education Centre (NFEC) was established at Delhi under the Ministry of Education with Unesco assistance. The NFEC provided resource support to the social education programme and organised training programmes of five months duration for the district social education organisers. The present Directorate of Adult Education of the Ministry of Education & Culture is a descendant of the NFEC. Social Education Organisers Training Centres were established in various parts of the country mainly to organise training programmes for block-level social education organisers. These were the earlier attempts at building a suitable resource structure for adult education.

The idea of State Resource Centres for Adult Education was not entirely unfamiliar to educationists and planners. Each State Resource Centre (SRC) is to develop a resouece base for adult education organising seminars, workshops and conferences on various aspects of adult education; designing and conducting training programmes for district level and project level personnel ; assessing the needs of learners, developing a suitable need-based curriculum and designing learning materials; organising a systematic montioring and evaluation service; mobilising voluntary efforts for adult education and creating a favourable environment for the programme through mass media and interpersonal communication.

There are now sixteen State Resource Centres catering to the needs of nineteen States in India. Out of the the sixteen SRCs, nine are sponsored by voluntary agencies, four by the Universities, one by an association floated by a State Government and the other two are organised by the Education Departments of two State Governments. Some of the reputed voluntary agencies which have sponsored the SRCs are: Gujarat Vidyapeeth, Ahmedabad; Indian Institute of Education, Pune; Karnataka State Adult Education Council, Mysore; Literacy House, Lucknow; Bengal Social Service League, Calcutta and Utkal Navjeevan Mandal, Angul, Orissa. The Directorate of Adult Education of the Union Ministry of Education & Cultural functions as the National Resource Centre Centre (NRC) and advises the Ministry as well as the SRCs in all technical matters.

The resource structure for adult education had to be established on a proper footing in 1978 when the National Adult Education Programme (NAEP) was launched. Resource development proved to be NAEP's unique contribution to the whole world.

What has been the result? The entire resource consortium—the NRC and the SRCs—has been able to identify the needs of the learners in the context of the literacy, functionality and awareness aspects of the adult education programme and has been able to make a good beginning in designing and producing good learning materials. The adult learner is no longer using the children's primer and the contents of his books and other materials are relevant and meaningful. Take for example, the primer" Janile Jiniba" (We'll win, if we know), produced by the Orissa State Resource Centre for Adult Education. Printed in two-colour offset, its cover design itself is highly educative. Similarly, "Halchal", the Orissa SRC's monthly bulletin for neo-literates, has been extremely popular, being the first of its kind in Orissa. So also is the Chalti Jagat, published by the West Bengal SRC. The monthly wall newspapers, the Nattu Velicham (Light of the Village) of Kerala SRC and the Tundabaida (Word of Mouth) of the Orissa SRC have become very informative and interesting. No longer do the adult learners feel inadquate because of the inferior quality of reading materials in their hands. Literacy House, Lucknow, and the SRC, (Orissa), have used cycle libraries in the villages for post-literacy programmes, which have been very successful.

In the matter of training also, the NRC and SRCs have organised innovative training programmes for field personnel. Useful training manuals have been produced. "Training of Adult Education Functionalies—A Handbook", produced by the Central Directorate of Adult Education has been a trend setter.

Workshops, conferences and seminars have been organised on different aspects of adult education with a view to formulate guidelines for improving the programme. Efforts have been made to sensitise the mass media about the urgent need to mobilise their support for adult education. In July 1982, Angul (Orissa) was the venue for a six-day workshop on "Adult Education Software for INSAT" jointly organised by the Central Directorate of Adult Education and the Orissa State Resource Centre for Adult Education. All the SRCs are going to be actively involved the in the planning and production of media software. Population education has been integrated into the adult education curriculm, and the Orissa SRC had a field programme of population education, in twentyfive villages, which act as the laboratory for experimentation. Taking science to villages through adult education is being tried.

Evaluation has also been improved in the programme. Each SRC organises a field programme of adult education to test the evaluation tools and other methods and innovations before they are widely used in the field.

The SRCs also bring out publications on adult education for the general public. The SRC, Orissa, has brought out, among other publications, the Oriya translation of President Julius Nyerere's thought provoking lecture "Adult Education and and Development". Its monthly magazine the Chetana (Oriya) and the Rajasthan SRC's monthly, the Anoupcharika (Hindi), are popular journals in the field.

A lot has been done since 1976-77, but a greater lot remains to be done. Adult education has been included in the 20- point Economic Programme of the Prime Minister. The Planning Commission has taken it as an essential component of the basic minimum needs programme for the Sixth Five Year Plan. The Seventh Plan, according to available indications, is going to have a much bigger allocation for adult education. The objectives of resource development will be fulfilled only when resource consciousness spreads to the project and the village level. Organisation of District Resource Units is sure to accelerate this process. The SRCs have thus a vital role to play in this area. ☐

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Adult Education and National Integration

"Sometimes as I reached a gathering", writes Jawaharlal Nehru, in 'The Discovery of India', "a great roar of welcome would greet me; Bharat Mata Ki Jai—'Victory to Mother India' ! I would ask them unexpectedly what they meant by that cry, who was this Bharat Mata, Mother India, whose victory they wanted? My question would amuse them and surprise them, and then not knowing exactly what to answer, they would look at each other and at me. I persisted in my questioning. At last a vigorous Jat, wedded to the soil from immemorial generations, would say that it was the *dharti*, the good earth of India, that they meant. What earth? Their particular village patch, or all the patches in the district or province, or in the whole of India? And so question and answer went on, till they would ask me impatiently to tell them all about it. I would endeavour to do so and explain that India was all this that they had thought, but it was much more. The mountains and the rivers of India, and the forests and broad fields, which gave us food, were all dear to us, but what counted ultimately were the the people of India, people like them and me, who were spread out all over this vast land. Bharat Mata, Mother India, I told them, you are in a manner yourselves Bharat Mata, and as this idea slowly soaked into their brains they would light up as if they had made a great discovery." This was adult education in action leading towards national integration.

Social integration is a built-in component of national integration. Our society is hierarchical and stratified, and there is lack of vertical mobility in it. The different classes, particularly the rich and the poor, and the uneducated are separated by varying degrees of social distances which are tending to widen. These problems of social integration are also the problems of national integration.

Ethnic and Cultural Diversity

In a recent newspaper article, K.R. Malkani, says : "India displays great ethnic and cultural diversity. Viewing it against the homogeneous—I almost said homogenized—Western States, one may wonder how far this diversity is consistent with national unity. But this is what India always was. And this is what India always will be. It has been—and will be—one, in spite of this diversity. The Indian idea of unity is not uniformity and there is a thread of unity which encircles all of us professing different religions, speaking a number of languages and belonging to different States. This is a virtue which is inherent in our situation, and its value goes on increasing if the people realise its importance and practise the ideals contained in it. The Education commission (1964-66), in its report entitled "Education and National Development" says: "The situation, complex as it was, has been made critical by recent developments which threaten both national unity and social progress. As education is not rooted in the tradition of the people, the educated persons, tend to be alienated from their own culture. The growth of local, regional, linguistic and State loyalties tend to make the people forget 'India'. The old values, which held society together, have been disappearing, and as there is no effective programme to replace them by a new sense of social responsibility, innumerable signs of social disorganisation are evident everywhere and are continually on the increase." The Education Commission's remarks, made during the sixties are still valid to-day.

National integration is a question of the mind and heart, because one has to realise that he belongs to the great country of ours having cultural and ethnic diversity. Such a realisation can only give rise to a faith that whatever be one's religion or language he is an Indian first and Indian last. Ours is a democratic society and our constitution is secular. We cannot afford to have passive, indifferent, ignorant and idle individuals as members of our society. Each one of us must know our neighbourhood, our village our districts, our State and our country in order to be able to appreciate its diversity and find out the thread of unity which binds all of us. Without this complete awareness, national integration is not possible.

Varied Content

To quote the Education Commission (1964-66) again : "Social and national integration is crucial to the creation of a united country, which is an essential pre-condition for all progress. It has a varied content—economic, social, cultural and political—and its different facts are closely interconnected. It needs

—a confidence in the nation's future;

—a continuous rise in the standard or living for the massess and the reduction in unemployment and in the disparties in development between different parts of the country, all of which are essential to promote a sense of opportunity in political, economic and social terms;

—a deep sense of the values and obligations of citizenship and a growing identification of the people, not with sectional loyalties, but with the 'nation' as a whole;

—assurance of good and impartial administration, equal treatment for every citizen, in fact and not merely in law, based on the integrity of the public services; and

—mutual understanding and respect for the culture, traditions and ways of life of different sections of the nation."

It is evident that social and national integration will have to to be tackled on several fronts including education. As a matter of fact, the entire gamut of national endeavour has to play its role for achieving social and national integration, Removal of social and economic inequalities assumes the top most priority in this task, because inequality of any sort goes against social and national integration. According to the Education Commission (1964-66), "education can and should play a very significant role in it by (——)

—introducing a common school system of public education;

—making social and national service an integral part of education at all stages;

—developing all modern Indian languages, and taking necessary steps to enrich Hindi as quickly as possible so that it is able to function effectively as the official language of the Union, and

—promoting national consciousness".

Although the above mentioned recommendations of the Education Commission (1964-66) relate to formal education, adult education, which belongs to the nonformal sector, and is a sub-system of education, has a vital role to play in achieving national integration.

Adult Education

The 'Recommendation on the Development of Adult Education, adopted by the General Conference at its nineteenth session held at Nairobi on 26 November 1975, defines adult education as follows :

"The term 'adult education' denotes the entire body of organised educational processes, whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adult by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes and behaviour in the twofold perspective of full personal development and participation in balanced and independent, social, economic and cultural development;

"Adult education, however, must not be considered as entity in itself, it is a sub-division, and an integral part of a global scheme for lifelong education and learning; the term 'lifelong education and learning' for its part, denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the educational system;

"In such a scheme men and women are the agents of their own education, through continual interaction between their thoughts and actions;

"Education and learning, far from being limited to the period of attendance at school, should extend throughout life, include all skills and branches of knowledge, use all possible means and give the opportunity to all people for full development of the personality;

"The educational and learning processes in which children, young people and adults of all ages are involved in the course of their lives, in whatever form, should be considered as a whole".

The Recommendation, while at the 'Objectives and Strategy' of adult education suggests that one of its aims should be to contribute to "creating an understanding of and respect for the diversity of customs and cultures, on both the national and international planes."

Adult education in India has had an uneven past. However, it has always been sensitive to the international dimensions and has been influenced by the innovations and methods tried elsewhere, besides contributing its own novelties and special features to be tried and adopted in different situations. It has been recognised by the Planning Commission as an essential component of the basic minimum needs programme. Its three components, i.e. Literacy, Functionality and Awareness reinforce each other so as to achieve its objectives.

Process and Programme of Communication

Adult education is essentially a process and programme of communication, through which its three components are achieved. Each component needs specific methods of adult education to be achieved and the methods to be operated successfully need trained and dedicated workers. The contents of national integration can be woven with ingenuity into the three components of adult education. Someone may raise his eye brows and ask : How to weave the contents of national integration into the functionality component of adult education? The concept of functionality should include all its dimensions: political, economic, social and cultural. The Expert Team on Evaluation of Experimental Literacy Projects, constituted by UNESCO/UNDP, says: "Just as development is not only economic growth, so literacy—and education more generally—must aim above all to arouse in the individual a critical awareness of social reality, and to enable him or her to understand, master and transform his or her destiny. Limiting literacy to narrow economic aims implies the risk of diminishing considerably the importance of this task and of preventing the mobilization of hearts and minds without which no sustained development is possible."

The methods of adult education, which can bring in and promote national integration, have been in operation in our society since long. As Humayun Kabir put it "custom and folk lore, proverbs and fables, mythology and scripture have been passed from generation to generation and to some extent made up for the lack of teaching through the written word". Our festivals and fairs have had an educational purpose. "The public readings of Puranas, with popular interpretations", says Sardar Pannikar, "the Harikathas and bhajans, folk art, exhibitions and numerous other institutions, which existed and exist even today were meant primarily for social education." The village community in ancient India functioned with an economy of peace and a society based on welfare, only because of the fact that there were many village institutions to protect and accelerate the potential, growth of society. These institutions fulfilled the social, economic, educational and cultural needs of the village. The vacuum created by the disintegration and disappearance of some of these institutions is now to be filled up by the existing institutions. The home, the school, the Panchayat and Cooperative and other associate organisations are to contribute directly for the promotion of adult education leading to social and national integration.

Curriculum

It has been stated elsewhere that the contents of national integration are to be woven into literacy, functionality and awareness, the three components of adult education. This means that national integration has to be suitably integrated with the other elements in the need-based curriculum. Once such a curriculum is planned and designed, it should be possible to map out the details of the curriculum flowing down to the units of lessons and their respective methods of treatment. It is possible to apply the principle of 'known to the unknown' even in dealing with a complex subject like national integration. One could possibly start from the village itself, where the people of different communities live together sharing each others joys and sorrows and maintaining the unity and solidarity of the village.

It is during the post-literacy or the continuing education phase that national integration can be promoted through post-literacy and follow-up books, bulletin for neo-literates, rural newspapers, posters, personal and group discussions and mass media, both traditional and modern. Post literacy and follow-up books can be prepared in various languages on national integration themes. The State Resource Centre for Adult Education, Orissa, has developed two manuscripts for follow-up books on Konark and Puri in Hindi, with a view to expose the Hindi speaking neo-literates to certain aspects of Oriya culture. Our traditional folk media of communication can come in handy for blending the theme of national integration with their usual themes. Our various folk drama forms can be used with advantage for promoting national integration. The play 'Dharamshala', produced by the Song and Drama Division of the Ministry of Information and Broadcasting, is an example of treating a difficult theme like national integration in a drama from with suspense and humour.

Electronic Media

Through the modern electoronic media of communication, it is possible to hear and see one entertainment form in another linguistic area. The viewers in Orissa can see the Kathakali of Kerala and the audience in Karnataka can enjoy the Odisi of Orissa, thanks to the potentialities of television. When the INSAT will be in its orbit in April 1982, the communication potentialities of radio and television will pose challenges before the software producers for more meaningful programmes. In our rich heritage there are plenty of unidentified cultural sources, like poems, stories, songs, festivals, fairs, etc., which, when properly used, can accelerate national integration.

Time has come for the National Integration Council to have a dynamic working relationship with the National Board of Adult Education, the National Council of Educational Research and Training and the Ministry of Information and Broadcasting so that national integration is kept constantly in focus in the message delivery mechanisms of these agencies.

It is true that communication induces social change, but it is also equally valid that social action can accelerate absorption and retention of messages coming from communication media. Inter-caste and inter-religious marriages on intra-state and inter-state basis have to be encouraged to be the order of the day, because these alone can bring in lasting national integration. Indonesia, a country of about 3000 inhabitable islands, has already set the example in this. "Vinneka Tungallika", the Indonesian motto of Unity in Diversity is being practised in the country both in letter and spirit. Respect for each other's language, culture, and customs lays the foundation for national integration.

We are selling and promoting tourism in India through an elaborate system of marketing and advertising, and the same selling points could also be utilised in promoting national integration. The defunct Inter-University Youth Festival should be revived as an urgent necessity to promote national integration. Youth Choirs, like the Calcutta Youth Choir led by Ruma Guha Thakurta should be organised under the auspices of the Ministry of Education & Culture over the entire length and breadth of the country. When we sing in chorus the folk songs and mass songs in various languages of India, we develop a love and affection towards the languages and the people speaking these languages. Chorus singing has a magical effect on the singers and this the writer can say from his personal experience.

National integration pre-supposes a high degree of personal integrity. As P.S. Sundaram, put it : "A sense of unity is not fostered by water-tight compartments, double standards and new-speak. Let us take our country's motto seriously and not only swear but act by it. The triumphs of untruth, even in the short run are illusory."☐

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5 Civic Education

Adult education has all the components of civic education.

1972 was an important year in the history of adult education because it saw the Third World Conference on Adult Education held in Tokyo, and it gave to the world 'Learning to be', the report of the International Commission on the Development of Education constituted by Unesco. Equally important was the year 1965 for the Tehran Conference of World Ministers of Education which gave a new orientation to the literacy programme by crystallising the concept of functional and work oriented literacy. In its conclusions it stated that rather than an end in itself, functional literacy should be regarded as a way of preparing man for a social, civic and economic role that goes far beyond the limits of rudimentary literacy training consisting merely in the teaching of reading and writing.

'Adult education in the context of Lifelong Learning' was the theme of the Tokyo Conference. In the challanging words of its Final Report : "Experience shows that the provision of more education in most communities tends to favour most of already well educated; the educationally under privileged have yet to claim their rights. Adult education is no exception to the rule for these adults, who most need education, have been largely neglected—they are the forgotten people. Thus, the major task of adult education during the Second Development Decade of the United National is to seek out and serve these forgotten people".

Forgotten People

Paulo Freire's 'Pedagogy of the Oppressed' is about the education of these forgotten people. According to him, there is no neutral education; it is either for domestication or for freedom. The human word in literacy teaching is not mere vocabulary: it is word and action. In Freire's hands literacy is a weapon for social change. As Saiyidain put it, "But it is adult education interpreted in the broader, more comprehensive sense which includes political and civic, as well as moral education." As mentioned in 'Learning to be'. "The aim is not simply to enable an illiterate person to decipher words in a textbook, but to become better integrated into his environment, to have a better grasp of rural life, to enhance his personal dignity, to have access to source of knowledge which he personally may find useful, to acquire the know-how and the techniques he needs, in order to lead a better life." India's present Adult Education Programme, having its genesis in the National Adult Education Programme (NAEP), has three facets—literacy, functionality and awareness—with a view to help man to develop himself.

In the Recommendation on the Development of Adult Education, adopted by the 19th General Conference of UNESCO, held in Nairobi in 1976, "the term of adult education denotes the entire body of organised educational processes, whatever the content, level, and method, whether formal and otherwise, whether they prolong or replace initial education in schools, college and universities as well as in apprenticeship, whereby persons regarded as adult by the society to which they belong, develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn them a new direction and bring about changes in their attitudes or behaviour in the two fold perspective full personal development and participation in balanced and independent social, economic and cultural development." According to the emphasis contained in the Recommendation, adult education should not be taken as an entity in itself, but as integral component of a global scheme of lifelong education and learning.

Dr. G. Ramachandran, while delivering the Zakir Husain Memorial lecture at the Indian Adult Education Association in 1975, had said : "I have often defined adult education as education for citizenship. Citizenship in a free democracy and within an open society involves some training, a minimum of general education and last but not least, the capacity to earn an honest living. What is the use of giving every adult a vote without giving him or her some training and some learning to exercise that vote freely without fear and under no pressure from within or without."

Communication Tasks

Adult education, when properly translated into operational terms, is reduced to a series of communication tasks; and therefore needs the support of the communication media, materials and structures. Its three facets—literacy, functionality and awareness—and their learning contents are best promoted through communication. The communication media also need the support of adult education so that the messages are understood, perceived and favourably treated by the intended audience. Unfortunately, this mutual relationship between adult education and media has not always been very healthy. The Report of the third International Conference on Adult Education, held in Tokyo, in 1972, states: "Thanks to the rapid technological development of modern means of communication, it had become possible to reach far larger number of people than anyone had imagined even a few years ago. To the mass media a major role should be ascribed in arousing, among people, everywhere an awareness of the common social, economic and cultural forces affecting their way of life. The media could provide not only instruction, but valuable information and cultural enrichment." The report further states: "Yet almost nowhere had the potential of the mass media been enlised in the service of adult education. In the contrary, the media were often used for anti-educational purposes. The basic problems were how to exploit the media with a view to extending educational opportunities, how to reduce cost without lowering quality of learning and management of the educational process."

Adult education needs a vigorous communication support in the following areas. Its basic objectives have to be carried to the people in the quickest possible time and this has to be done by a judicious combination of mass media and inter-personal media through a multi-media and a multi-exposure campaign.

Intended beneficiaries of the adult education programme are to be motivated to participate in the programme as active learners. This is the crux of the problem. Research findings in the areas of social and technological change reveal that quite a large number of parameters are responsible for motivating people towards change. Awareness is easily created by meaningful communication through a multi-media system.

The third area of communication support is to use educational technology in designing and producing teaching-learning materials for the neo-literate and other learners as well as for instructional staff. The same hardware is used both for educational technology and mass media, and even the principles of software preparation are the same. Moreover, the printed medium serves a very useful purpose for both.

The massive training programmes for various types of adult education personnel have to be reinforced by communication, as far as application of its process and use of its aids are concerned. Audio-visual aids and other training materials come in handy.

A Note of Warning

Now that the area of communication support have been identified, it is necessary to look at the media and their relative effectiveness in enlisting support to a dynamic programme like adult education containing all the components of civic education. Here it may not be out of place to sound a note of warning coming from the communication researchers.

All over the Third World, there is urgent need to gear communication channels towards national development, but the mass media coverage of development messages is rather inadequate.

It was taken for granted, over a long time, that a message when spread through the mass media, would influence the audiance. There was another assumption that the message was carried directly to the audience. Both these assumptions have been disproved.

Experts in public opinion research have identified some psychological characteristics of people that effect their exposure to campaigns and their absorption of the messages. There are some people who know nothing about the campaign topics, and their social and psychological make-up makes them especially hard to reach, irrespective of the campaign message. There are other people who admit they have little or no interest in the public issues around which campaigns are usually organised. People are inclined to expose themselves to information that is congenial to their prior attitudes and avoid exposure to that which is not congenial. People always perceive, absorb and remember contents differently according to their wishes, motives and value systems. Changes in the views or behaviours following exposure to a message may be differently effected by the individuals, predispositions and attitudes.

Over the past fifteen years, everywhere in the world the persuading power of mass media has been oversold. It has been realised, to the mutual advantage of the communicator and the media that the role of mass media is more indirect and contributory. Communication experts are now positive that very seldom is the mass media a powerful and direct stimulus to development.

Every medium is selective; it selects its own audiences and the audiences select their favourable media. Information flows by word of mouth by social channels and reaches often those people who had not been exposed to the media in the first place. This puts the communicator in a dilemma. Does he project his image aimed at the level of the masses or does he focus his message only at the elite audience, who will hopefully spread it at the society at large? Again a great deal depends upon the contents and quality of the message. Is the subject matter relevant to the life of the person? Is it timely? Does it fit into his frame of reference or does it challenge his value system? Is it of special appeal to a section of the community, say, women, youth, children?

Radio

A UNESCO Radio Survey of 110 countries, conducted in 1971, reports that educational programmes took up about 6,500 hours a week, representing only about 2.5 per cent of the 250,000 hours a week of radio broadcasts. These educational hours are used differently in different countries. Radio has been and being used for both formal and non-formal education under five strategies: (1) Open Broadcasting—the unorganised audience, (2) Instructional Radio—the organised learning group, (3) Radio Rural Forums—the decision group (4) Radio Schools—the non-formal learning group, and (5) Radio and Animation—the participating group. There are certain assumptions behind each strategy to which radio has been put to use about radio's effects, about the structure of reception and about learning and social change. India was one of the few pioneering countries of the world to have used the Radio Rural Forums to its advantage. Presently, every station of All India Radio broadcasts a 30-minute weekly programme on adult education every week. Most of these broadcasts are dull and uninteresting reflecting lack of creativity, imagination, and occasionally ignorance, on the part of the producers.

The Radio Schools strategy was adopted in a small town called Sutatanza, Colombia, by a spanish priest named Saleedo, for using radio in adult education and rural development. Radio Sutatanza, now a part of a national organisation called Accion Cultural Popular (ACPO), is today a huge multi-media educational programme covering millions of men and women in Colombia and Guatemala. Besides its multi-media mass campaigns, ACPO trains a large cadre of local leaders who act as change agents, in the 'radio schools communities.'

Television

The Third World experience of using TV for literacy and adult education is very interesting. The Jamaica Literacy Project had used TV for motivation and information, reading, word building and writing. The 'Television Literacy Campaign' of Yugoslavia, during its seven-year life span, used a series of programmes on language, history, elementary arithmetic and marriage counselling. Tunisia's Teaching of Adults and Social Education by Radio and Television organised by its Institute of Adult Education and Tunisian Radio and Television had the following used in TV: reading,arithmetic, history, geography, civic or religions instruction, family milieu, occupational and social milien and the study of world problems. In Algeria, TV was used for direct literacy teaching through suitable film programmes in the various formats presented by a screen teacher. In the sixties, educational TV programmes were organised in some Third World countries, but by now many countries have abandoned or restricted ETV in favour of other media.

India's Satellite Instructional Television Experiment (SITE), launched during 1975-76, is considered as an unique experiment in mass communication. 2, 330 villages in 20 districts and in six states were covered under SITE. The Social Evaluation Report on SITE tells us that on the adoption of agricultural practices, there is some gain, although it is not statistically significant. In regard to adoption of health innovations, the Report states that perhaps one year is not enough to adopt innovations. Our own experience of SITE and whatever we have learnt from the experience of other countries lead us to a realisation that planning for software production is crucial to the utilisation of mass media for development.

Adult education is not possible in an illiterate environment. Rural newspapers have yet to be published in a large scale, because the regional language newspapers reaching the rural areas do not need the neo-literates. In some African countries, for example Ghana, mimeographed rural newspapers are produced and distributed. We might as well make a beginning in this direction. How about the regional language newspapers reserving at least one page in every issue exclusively for the neo-literates? How about the magazines in the regional languages publishing in every issue a few pages exclusively for the new reading public? Rural newspapers in Africa promote rural marketing. It should not be difficult for a rural newspaper to get advertisements from the agricultural input manufacturers and other industries in marketing their products in rural areas.

Coming to television again, there has been a rapid expansion in TV transmission facilities is India through the installation of about 180 low power transmitters. INSAT-1B enables the establishment of a network involving all the transmitters of Doordarshan, thus enabling them to relay programmes through the satellite. This is a technological breakthrough in telecasting and will soon lead to similar developments in software planning and preparation.

Already Doordarshan had achieved a breakthrough in introducing a fortnightly programme called JANVANI (Voice of the People). Conceptualised by the Prime Minister, every Janvani programme had a central minister who was interviewed by about eighteen to twenty persons from all walks of life coming from all over the country. The questions were crisp, direct, and very often uncomfortable for the minister, who tried his best to give satisfactory replies. This programme gained momentum day by day.

Other serials, particularly Hum Log and Rajni also became very popular. Both the programmes were in the soap opera style. Hum Log is a family serial, each episole of which had a message of social relevance. Rajni, on the other hand, had a direct message, because it exposes the social and civic problems very vividly. Both the programmes lead to civic education.

Mass media in terms of software planning, production and utilisation, is a broad based programmes of adult education (civic education included). By way of conclusion, it would be relevant to read the following paragraph from 'Learning To be' :

"Mass literacy campaigns are justified so long as they help the people participate in the changing of their environment. To avoid past disappointments, it is important for the literacy programmes now under way in many countries to be linked to basic education on civic life and the world of work. And these campaigns must be preceded, supported, accompanied and followed through by a large quantity of radio and television programme."

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6 Voters' Education

Our electoral politics is very complicated as well as interesting. It is linked with the various socio-metric networks operating in our social fabric at the time of elections as well as at normal times. As Dilip Hiro writes in his thought provoking book 'Inside India To-day' : "Introduction of universal suffrage, in the wake of the 1950 Constitution, did not revolutionize the situation, because the already established caste-classes concentrated within themselves not only political authority, but also social prestige and economic power; and the hitherto disenfranchised sections of society needed some time to realize fully the importance of a vote given to them from the top, and to overcome their historic sense of inferiority; and because, most importantly, the (feudal type) economic dependence of the lower caste-classes on the upper caste-classes remained unchanged. Furthermore, traditional leaders of the lower sections of society lacked both education and political awareness, and could not conceive of the possibility of ousting the upper caste leaders from the seats of power. The most they could, and did, do was to bargain with the leaders of competing upper castes, or factions within them that is, offer them a block of votes in an election for money and/or social concessions".

The situation has not changed even to-day. It was expected that the institution of the Panchayati Raj system would foster a new breed of leaders, motivated and dedicated to a radical socio-economic change. But, it did not happen; the old order was sustained. The upper caste leaders or their henchmen in the lower castes were, and are, still in the saddle. According to a survey of the Panchayat Samitis in a district in Andhra Pradesh, conducted in the mid-1960s, "high caste, more land, more money, and more education continued to be the requisites for political success." This situation considerably influences the voting behaviour. As Gopal Krishna put it : "It may well be that by and large the voting act is devoid of political content... Indeed, the decision to vote for one candidate rather than another may be governed entirely by non-political considerations, and the voter may often be unaware of the political choice he makes through the act of voting." Making the right political choice through the act of voting depends upon ones political awareness with reference to the local situation. And such an awareness is created only by education in general and adult education in particular.

Creation of political awareness has been intentionally neglected by our educational system, both formal and nonformal. Somehow in the Indian scenerio, the word 'political' has been misunderstood, and misinterpreted, as a result of which political education has been equated with party politics. Really speaking, political education should enable one to study the different political philosophies and political systems, political situation in our own country and state, sources of exploitation, socio-economic forces operating in society, class and caste conflicts and the like. This is a must in a democracy, but seldom it is done systematically. In primary and secondary stages, political education is totally avoided. In university education, only the students of humanities get access to political education. In non-formal adult education, only recently something has been done in the area of social awareness, but it can be easily said that political education has remained outside its purview. This is not unexpected, because neither the educational system nor the political system, including the party in power, is keen to develop a political awareness in the people.

Political awareness should be a strong component of adult education. The present social awareness component in the adult education programme has been reduced to the dissemination of some information about the various development schemes of the Govenment and the benefits available from the same. Perhaps it is due to the fact that the adult education *instructors* and supervisers find it easy to do so. Secondly, there are very few teaching-learning materials, including those for post-literacy and follow-up, bearing a focus on political education and political awareness.

Treatment of the topic/s relating to political education and political awareness is a tricky job, and it can be done by a skilled communicator. But, very few of the adult education instructors possess the education and skills to do the job. Therefore, it needs to be done by resource persons to be drawn from the community or outside. The adult education personnel are to be trained in the art and technique of discussing topics relating to political awareness. There should be continuous follow-up after training.

We should have some permanent learning centres like the Folk High Schools of Denmark, which were originally meant for the general education and personal development of the rural youth. The Danish Folk High Schools owe their origin to the educational philosophy of Bishop Grundtvig. During his time, the people in Denmark were mostly ignorant peasants, who were exploited by the rich and the educated few. He saw them moving from this condition to be alert and critical people having their own opinions. In the 1870s, when international trade had adverse impact on Danish agriculture, the people, as a result of meaningful education and better political awareness, were able to meet the challenges. Thus, grew the Danish co-operative movement. During the summer of 1964, when this writer was a participant in a Folk High School in Denmark, there were some politicians who were members of the course. It is a normal feature of the Folk High Schools to have politicians as course members. The Kuvokuni College in Tanzania is one such college for politicians.

Although we had started the Janata Colleges in the fifties with a lot of fanfare, excepting the Vidyapeeths in Karnataka, we are not doing anything similar elsewhere. Call it a Janata College or Vidyapeeth or Lokshala, its objective should be to organise meaningful nonformal educational activities leading, among other things, to citizenship training and political awareness. It should also utilise the informal learning systems and resources existing within the community or communities for this purpose. Our National Committee on Folk High Schools, constituted by the Indian Adult Education Association, should be able to give some serious thought to this.

We have politicians at various levels beginning from the Gramsabha to the Loksabha and it cannot be assumed that all of them possess the same degree of social and political awareness. For the survival and success of democracy in India, it is necessary that there should be Staff Colleges for Political Activists which should be able to organise seminars, workshops and joint training programmes for politicians.

Whether it is Panchayat election, or Co-operative election or elections to State Legislatures and Parliament, various channels, methods and media of communication are utilised every time. Publicity gradually becomes propaganda in which there is a powerful motive to distort facts and twist truth into untruth. And finally, other factors are brought into the election campaigns to influence voting behaviour. However, media has a vital role to play in educating the voter. But, unfortunately the Government controlled media like the radio and TV in India are not able to do much in this direction, It may not be an exaggeration to say that both the Akashvani and Doordarshan are shy of educating the voters. The press does a commendable job in this direction, but here again its readership is limited to people who are already educated. Hence the urgent need for rural newspapers.

The traditional media of communication which are free of Government control can be very effective in educating the voters. The high degree of political awarencss one sees in rural West Bengal is due to the constant efforts of Jatra parties which use social and political themes in their plays. It needs imagination, dedication and tremendous organisational efforts to utitise the traditional media for creating political awareness in the people. How about a voluntary organisation making a beginning in its areas ?

Education of the voters should be a continuous process in a democracy. It should be the function of society, which should be able to utilise its different sub-systems in this endeavour.

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7 Scientific Temper

In a recent Unesco technical study entitled "Societal Utilization of Scientific and Technology Research", it is stated that the process of social utilization of scientific and technical research must be viewed in a context of complex interactions between science and society, which takes place at various levels of planning, decision making and implementation. There are different ways in which to view science,technology and the related research and development : as a social process, a social product, a powerful factor of socio-economic development and progress, etc. It is also possible to see science "as a historically determined social phenomenon rooted in the way of life of societies, and a conditioning factor of their well being".

The study of societal utilisation reflects upon "the interaction and interrelationship of the R and D (research and development) system with concerned societal structures on the three levels of the overall process" : identification of the emerging issues or problems, creation and development of relevant knowledge, and practical application of results. The internal and external constraints within each level affect the entire process.

The scientific policy Resolution, adopted by the Government of India on 4 March 1958, states :

"It is only through the scientific approach and method and the use of scientific knowledge that reasonable material, cultural amenities and services can be provided for every member of the community, and it is out of a recognition of this possibility that the idea of a welfare state has grown. It is characteristic of the present world that the progress towards the practical realisation of a welfare state differs widely from country to country in direct relation to the extent of industrialisation and the effort and resources applied in the pursuit of science". Some of the aims of the of the Government of India are "to encourage individual initiative for the acquisition and dissemination of knowledge, and for the discovery of new knowledge, in an atmosphere of academic freedom" and "to secure for the people of the country all the benefits that can accure from the acquisition and application of scientific knowledge".

Major objectve of planning

The rapid development of science and technology and their application have been accepted as a major objective of planning in India. The Planning Commission, in the 'Sixth Five Year Plan' (1980-85) had observed: "Science is both an outlook and a value system. Despite the tremendous growth of science, very few scientists have taken upon themselves the responsibility of creating a scientific ethos. The task of creating a scientific temper is a vital necessity for the growth of science and its utilisation in the development of process. There is need to create a scientific climate and involve the people in discussion on various issues of science and technology which affect their lives".

The promotion of science and technology cannot be accelerated unless a climate of receptivity and an awareness of the importance of science and technology in modern life are created in the general public. This is possible when science and technology are popularised, that is, interpreted and diffused to the whole population.

The UNESCO Conference on the Application of Science and Technology to the Development of Asia, held in New Delhi in 1968, remarks: "The difficulties of interpreting science to the public are great, particularly in developing countries with a strong rural component (as in Asia), where a large proportion of the population may be illiterate and there are few opportunities for direct contact with application of science and technology. Nevertheless, it is precisely there that the need for the application of science may be greatest". The Conference further observes that there should be universal scientific literacy when it recommends : "In a world which has witnessed an unprecendented acceleration of scientific progress during recent decades, it is widely regarded as necessary that every citizen should have some understanding of science and the language of scientists. Science literacy may have to be developed at different levels : first, for those who may work at relatively unskilled levels, but nevertheless, need some knowledge of science in order properly to exploit life's opportunities, to use public services, to be able to do their own jobs efficiently; next, for those employed in skill occupations, who need a greater degree of science literacy, since the tasks they perform, the process they control and the many aids they use are based on scientific principles. At a still higher level, the need is for science literacy of a quality permitting direct contact and communicateon between the scientist and non-scientist at policy making and executive level."

The Steering Group on science and Technology and Environment for the Seventh Five Year Plan, constituted by the Planning Commission, while recognising the need to disseminate scientific information into various segments of society, to popularise science and to create a scientific temper, remarks that this is an area of weakness in our S and T scene. The Planning Commission document 'Seventh Five Year Plan (1985-90), describes scientific temper as follows :

"Scientific temper is more an attribute of the human mind and of the social decision making process than mere knowledge about things which are scientific. It is more related to the method of science than to the content of science. The creation of a scientific temper relating to scientific developments and knowledge, and their implications are basic to the large scale growth and utilisation of science by society". According to Jawaharlal Nehru, "Science is not a matter of merely looking at test tubes and mixing this and that and producing things big or small. Science, ultimately, is a way of training the mind and the life functioning according to the way and methods of science".

Man has reached the moon, but there are two theories for eclipses. One theory is for teaching in the class and the other is for practising at home with all the rituals. The profesor of biology, who is fully aware of and knowledgeable about the theory and evolution by Darwin, believes in a theory of life, which is totally unscientific and absurd. A physicist, who theorieses in the classroom that matter cannot be created or destroyed, believes that a gold wristwatch or a gold pendant can be created out of nothing. Such persons, although highly rational in their scientific investigations, are hopelessly irrational in other matters concerning life. For them science appears to be only a means of livelihood and not a way of life. Unfortunately, they help the society in being superstructured with superstitions.

What about other educated people in society? In 1950, a cowherd boy in a village near Angul (Dhenkanal District, Orissa) claimed to have possessed supernatural powers and started curing patients of all diseases by the leave of a particular plant. Overnight he was known as Nepal Baba and attracted people from far and near. Chartered planes brought businessmen, professionals, politicians and others who were anxious to have a 'darshan' of the Nepal Baba and have the 'medicine' mixed with his blessings. The small village of the Baba could not absorb the huge crowds, and for that matter Angul and Dhenkanal and even Cuttack failed to manage the situation. Within a week or so there was an epidemic of cholera and people died in hundreds and thousands. Both the sides of the National Highway touching Angul and Cuttuck were full of dead bodies. It was a ghastly scene. The leaf had no medicinal properties. The cowherd boy was tutored to be the Nepal Baba by some vested interests who made a lot of money out of the situation.

Whispering Campaign

In February 1980, there was a total solar eclipse. Puri and Konark (Orissa) were identified as two, out a few, places, where one could watch the fantastic sight of the total solar eclipse and observe the rare astronomical phenomenon. People were informed over the mass media that it was not advisable to look at the sun with naked eyes. Tinted glasses and exposed dark photo negative were recommended as protectives. The mass media did not stop at this. A whispering campaign was launched by the mass media with the message that at the time of the total eclipse, there would be snakes, jackles and other wild animals at the sea front. The campaign was so effective that actually at the time of the eclipse there were hardly a dozen or so people at the sea shore, and the entire town of Puri gave a deserted look. Children were locked up in the room by their parents, who were under the impact of a fear psychosis, totally illogical and unfounded. In a country like India, where the schools are not equiped with basic instruments and apparatuses to demonstrate the phenomena of solar and lunar eclipse in the class rooms, children could have seen and enjoyed how the sun was totally eclipsed in gradual phases, a phenomenon which occurs once in a blue moon. This was not to be. The hotels, rest houses. and even the Government managed tourist homes did not serve breakfast and lunch to their guests. because according to the 'other theory of eclipse practised at home,' nothing should be cooked a few hours before and after the eclipse. This was a living demonstration of the total lack of scientific temper in our society.

Some time ago a substantial amount of money was stolen from the cash book of an adult education organisation. Instead of making a FIR (First Information Report) at the local Police Station, the person responsible for the organisation went to a black magician. What happened further is not important right now. The incident got wide publicity and the credibility of the organisation suffered very much. Adult education was also ridiculed, because the concerned practitioners, were professing one thing and practising another.

The Nehru Centre, Bombay, in a statement on Scientific Temper, says: "Scientific Temper is compatible with observation and insight, reasoning and intuition; systematic work and creative impulse. It gives rise to an attitude of mind, which while being conscious of vast areas of ignorance, is neverthless optimistic about human ability to graduallly unravel the mysteries that surround us. In this process, Scientific Temper becomes part of a culture, a philosophy, and a way of life, which leads to pursuit of truth without prejudgement". The Statement further states : "The inculcation of scientific temper in our society would result in our people becoming rational and objective, thereby generating a climate favouring an egalitarian, democratic, secular and universalist outlook. Consequently, scientific temper can not flourish in a grossly inegalitarian society, where 50% of the population lives below the poverty line and almost 70% of our people, especially females, are illiterate. Social justice, widespread education and unrestricted communication are, therefore, pre-requisites for spread of scientific temper and for optimising the results of science and technology".

Three tasks

The analysis at this stage has identified three tasks to be performed with a view to promote Science and Technology. They are : Development of science literacy at various levels of society; popularisation of science and creation of a Scientific Temper.

Science literacy for those people who may work at relatively unskilled levels, can be developed through the literacy, awareness and functionality components of adult education programme. It should be possible to formulate a minimum curriculum on science and technology which could be incorporated in the overall curricula for basic and post-literacy materials. Popularisation of science, which is much wider than the development of science literacy, can be linked with all the three components of adult education and operated at its different phases. Creation of a scientific temper is a still wider activity to which adult education can contribute its share through its institutions, personnel, programmes, methods, materials and clientele. As a matter of fact, the three tasks mentioned above are linked with each other. Without the operation of one, the other is totally static.

Adult education in India has paid very little attention to science and technology. However, organisations and groups lske the Kerala Sastra Sahitya Parishad, Science Education Group (Bomay), Application of Science and Technology to Rural Areas (ASTRA), Bangalore, Scientific Workers' Forum (Calcutta), Kishore Bharti (Hoshangabad), Eklavya (Hoshangabad), and

Centre of Science for Villages (Wardha), (just to name a few) are very active in accelerating a people's science movement. The National Council for Science and Technology Communication, within the Department of Science and Technology, Government of India, encourages and facilitates all activities aimed at dissemination of science and creation of scientific temper. The Indian Adult Education Association is presently executing a pilot project on popularisation of science and technology, funded by the National Council of Science and Technology Communication. Therefore, a beginning has been made and, of course, a lot remains to be done in this area.

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8

Rural Newspapers

The International Commission on the Development of Education constituted by Unesco, in its report entitled "Learning to be", observes : "Every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the keystone of the learning society." In a learning society, the entire process of adult education is seen as a continuum, and the distinction between the literacy and post-literacy & follow-up stages gets blurred. This is more so in our context, because, the three components—literacy, functionality and awareness—of our Adult Education Programme are to be reflected in the literacy as well as the post-literacy & follow-up programmes. However, for organisational and management reasons, appropriate stages have been designed for literacy and post-literacy & follow-up; and their success depends, among other things, on the suitable learning materials which can be placed in the hands of the learners.

Rural Bias

Design of need-based learning materials for the literacy stages is relatively easier, from the point of view of magnitude of the requirements, but for the post-literacy and follow-up stage, which in the scheme of things is the same as the continuing education stage, the design and producation of materials are rather complex. The need is reflected in terms of a variety of materials on a number of topics to be fed regularly into the learning system. In spite of the suitability of books as learning materials in the post-literacy and follow-up stage, they sometime are not able to meet the changing needs of the neo-literates, because of their static contents. The topicality of a book does not last long and once a book has been read, the need for it attains a declining curve, whereas a newspaper or a periodical, properly edited and produced regularly, serves to establish a continuous link with the neo-literates by giving them both education as well as relevant and timely information on many aspects of their day-to-day life. Such a newspaper has to possess a rural bias in its contents, and its language should be easily understood by the readers it serves.

Harold Thomas, of the International Press Institute, says : "Four out of five of the people of the developing countries live in the areas—the places which governments and journalists all too often forget. Yet this is where the development stories are to be found—and where they are missed. So should there be a rural press based in the rural areas for rural readers?" The opening theme of the Seminar for Asian journalists on reaching the rural readers, held in Colombo, in December 1981, "was the neglect of rural news and the absence of an effective rural press." Sarath Amunugama, in his keynots address to the seminar, had said that there had been growing dissatisfaction with existing pattern of news flows because it was dominated by western owned and oriented news organisations ; and the developing countries complained that they did not get fair coverage. "But what strikes me as very interesting", he said, "is that these same complaints, these same objections can be levelled internally against the imbalance between the metropolitan news sources and the rural areas. In the Third World you can have just the same argument about lack of balance in the coverage of rural news and metropolitan news. In Asia some commentators have said it is far more difficult for rural news to get a place in metropolitan papers or the agencies or radio or TV than for a Third World news item to find its way into the western press. For us in the Third World we have to admit that these deficiencies do exist."

The seminar, after considerable discussion came back to the same questions, with which it had started its deliberations : "What is a *rural* newspaper, as distinct from an urban newspaper which may reach into rural areas and be read by village people? So far the seminar had not identified a rural paper published in a rural area for rural readers. The idea of a rural press was an interesting concept, but did it exist? What were the conditions for it to exist?" Frank Barton, of the International Press Institute, who directed the seminar observed that "the radio was not enough because you cannot refer back to it—nor answer back to it. To sustain literacy after leaving school there had to be something to read. What was needed in the rural areas was an unambitious very simple newsletter, perhaps a single duplicated sheet. Rural areas were the natural location for small papers, but it was essential that they should be produced within the community, though as an interim stage they might be printed in a regional centre or on a portable press." P.N. Malhan writes about the four-fold criteria for identifying the rural press The place of publication comes first; it should be located outside the metropolitan areas and big cities The second is the contents of the rural newspapers. What is the extent of coverage of news and features relevant and meaningful to the rural people? The Indian Rural Press Association lays down that 40% of the editorial space should be devoted to news and views on agriculture, commuity development, cooperation, and allied developmental topics. The third is that a rural newspaper should be in the spoken language or idiom of the rural readers; and the fourth is that the rural newspapers, including magazines and wall newspapers, should be meant for rural readers.

According to Hifzi Topuz of Unesco, "In fact, it frequently happens that new literates forget what they learned at school after a few years if they have no reading material at their disposal. In countries where the great majority of the population is composed of rural dwellers, the reading material which should be provided for new literates is the rural press." "Many Voices, One World", the report of the International Commission for the Study of Communication Problems, while summarizing the recommendations of the Commission, says. among other things, "The development of a community press in rural and small towns would not only provide print support for economic and social extension activities. This would also facilitate the production of functional literature for neo-literates as well." A Commonwealth Committee on Communication and the Media, in its report entitled "Communication, Society and Development" has recommended; "The literacy problem is compounded in many Commnwealth countries by the existence of several language groups, each of which requires specific attention. Despite these difficulties, newspapers and other components of the print media have an important role in promoting literacy. This can be advanced if they are adapted to the needs of the bulk of their reading audience and adopt a styls and format designed to promote reading interests. The small-readership pressis of special significance in the Commonwealth, where many countries have small population, or several linguistic groups."

Indian Press

The press had a long and chequered history in India. It had its beginnings in court newsletters. It also had its origin in the market-place, which was the centre of discussion and dissemination of the news of the day. Shopkeepers and travellers were, and even are, the informal news vendors. The modern press, as we know today was born to defy the foreign rule. According to M.V. Desai, "Even as consciousness of the sinister implecations of foreign rule dawned on the public mind, the 'vernacular' press grew in importance, especially after the mutiny of 1957. It spoke directly to the masses, in a language they could understand. The socio-religious reform movements of the nineteenth century gave the press a number of causes to fight for. The cross-fertilization of ideas expressing the forces of British imperialism and a nascent nationalism began. The The journals of Raja Ram Mohan Roy are among the best examples of this phase."

Mahatma Gandhi appeared as a mass communicator par excellence. His life was his message. His weeklies, the Indian Opinion, the Young India and the Harijan, stirred the conscience of the world. In his own words, "If you diligently study Harijan, it will equip you for the delicate task. It will give you an epitome of the week's doings in various parts of India in connection with the campaign against untouchability. It will also tell you what the others are doing and what the opponents are saying. It will lay bare the weakness and mistakes of workers. . . . I am an optimist. I have no quarrel with the opponents. These pages will be written as much for them as for the reformers. If Harijan stands for truth and if the reformers have patience, the opponents today will be the reformers of tomorrow." He further said, "One of the objects of the newspaper is to understand the popular feeling and give expression to it; another is to arouse among the people certain desirable sentiments; and the third is fearlessly to expose popular defects."

The English newspaper and those in the regional languages published from the metropolitan cities in India are highly urban oriented, and their coverage of development news and topics is very very low. Excepting Kerala and a few other pockets, the press has not penetrated in a big way into the rural areas, although during the five years from 1976 to 1980, the rapid growth recorded by our leading newspapers is really outsianding. As against 20 dailies with a combined circulation of 3.48 million copies in 1976, there were 45 top dailies in 1980 with a total sale of 9.8 million copies. By the turn of 1981, there were about 20,000 newspapers, big and small, in the country with a circulation of about 55 million copies. Some of the language dailies with large circulation are : *Navbharat Times* (450,000) and *Hindustan* (240,000) in Hindi, *Anand Bazar Patrika* (500,000 and and *Jugantar* (350,000) in Bengali, *Lok Satta* (200,000) in Marathi, *Gujarat Samachar* (210,000) in Gujarati *Malayalam Manorama* (570,000) and *Matrubhumi* (360,000) in Malayalam, *Dina Thanthi* (300,000) and *Dina Mani* (200,000) in Tamil, *Eenadu* (270,000) in Telegu and *Prajavani* (250,000) in Kannada. Excepting Eenadu, which was started in 1974, all the others were founded decades ago. There has been a magazine boom both in English and other Indian languages. One interesting feature of the Indian press is that all the top newpapers and magazines are published by "common ownership units", that is "publishing groups owning more than one publication."

According to an estimate made by Bhabani Sengupta, the former editor of Yojana, in 1966, "the total non-urban circulation of newspapers in India was about 4,14,000. In other words there was not even one copy for every village. In the absence of any national break-up, it is difficult to say which villages get how many newspapers." There are about 8000 small newspapers operating in and for the rural areas and covering rural themes. These include dailies of tabloid size, weeklies and biweeklies. The largest number of such paper is in Hindi, published from differennt parts of the country. These newspapers also appear in other languages, such are Gujarati, Bengali, Marathi, Urdu, Telegu, Malayalam, Oriya, Tamil and Kannada. Malhan writes that "there are yet other papers which are published in the languages of various small and ethnically distinct groups like Konkani, Manipuri, Lushai, Khasi, Santhali, Garo, Dogri, Tulu, Angani Naga, Tankhu Naga, Thada, to mention a few." However, no systematic data is available to indicate the readability levels of these newspapers and the suitability of their contents for development journalism.

Farm periodicals in India have contributed towards the growth of development journalism. The first farm periodical to be published from Agra about six decades ago, was *Krishi Sudhar* in Hindi, which was followed by a few in South Indian languages. The Government agriculture departments started publishing farm magazines in 1931, and in 1938, the Government of Bihar started the farm magazine *Gaon*, which served the farmers for many years. Soon after independence, the Indian Council of Agricultural Research started a popular farm magazine in Hindi called *Kheti*. In 1948, the Government of West Bengal started *Basundhara*, its periodical for farmers. Notable unofficial ventures were *Krishak Jagat* (1946) and the weekly *Sewagram* (1953) which continue to serve the rural readers. The Maharashtra Government farm magazine, *Shetkari* (Marathi) has a circulation of 120,000 copies. Today there are about 250 farm periodicals published in India, of which about 190 are in Hindi and other regional languages. In the absence of a readability survey on these magazines, it is difficult to say anything about their suitability for neo-literate learners. Mathur remarks that although there are 21 agricultural universities and 33 research institutes of the ICAR, there seems to be a near absence of concern for using farm periodicals as media for transfer of technology.

Rural Press in Africa

The rural newspapers in Africa have made a good beginning. They are of recent origin, but are innovative. The African rural newspapers are usually found in rural communities and their contents and styles are oriented towards the learning and information needs of their respective communities. These newspapaers, originally meant to provide communication support for literacy, have today become active sources for self-education and information. According to a recent Unesco report entitled "Rural Journalism in Africa", "The growth of these rural newspapers has been slow, but the very phenomenon of rural newspapers must be seen in the context of low literacy levels, wide variety of languages and the unavailability of basic infrastructures (roads, electricity, and services) in the areas beyond the capital. And yet, there have been a number of rural newspapers, many of them successful in their own right." The earliest newspapers appeared in Liberia and Nigeria in 1963 and 1964 respectively in the form of mimeographed bulletins as tools for retention of literacy. As Robert de T. Lawrence put it : "When the first issue of the *Gbarnga Gbele News* was published on 29 June 1963, it marked the beginning of a rural newspaper revolution in the interior of Liberia. Before the end of the year, there were 30 of these two-columned, brightly titled, neatly mimeographed newspapers covering the entire country, where none had existed before. In this comparatively short time a major step forward was made in low cost community newspaper publishing with these and other resulting benefits: (1) the literacy programme was stimulated thanks to a steady flow of interesting, easy to read, locally produced reading materials; (2) news from every corner of the country came to the newspapers and radio stations of the capital for nationwide redissemination; and (3) printed news became available to most Liberians living in the interior."

Unesco's Programme and Budget for 1971-72 contained a fairly modest programme of the development of rural Press in Africa, and accordingly, during this period Unesco studied "the development and creation of a rural Press in the French-speaking countries of Africa, with particular emphasis on its use as reading material for new literates.'' A Unesco mission made a survey of eleven African countries and recommended the "practicability of a rural press where printing facilities and basic journalism skills were available and where there was an ongoing literacy or rural development programme." Mali was the first country among the eleven surveyed to launch in 1972 its rural newspaper named *Kibaru*, whose initial circulation increased rapidly from 5,000 to 10,000 copies. Mali's success in rural journalism encouraged other African countries in this endeavour, and soon came *Game Su* from Togo. Then came *Sengo* from Congo, and so on. Burundi and Rwanda launched weekly newspapers. *Elimo Haina Mwisho* (Education has no end) in Swahili, published in Tanzania in 1974 as an integral part of a UNDP-Unesco assisted functional literacy programme, is now the most ambitious rural newspaper project in the whole of East Africa. It is of tabloid size, well printed and has a circulation of c. 100,000.

According to a recent Unesco report, there are 53 rurl newspapers in the whole of Africa, and all these are sponsered either by the Government or public agencies having development objectives. Most of these papers are monthlies. and their circulations ranges from 1000 to 14,000 copies, although a few have a larger number of copies. To quote the report: Most rural publications used a tabloid format. The style of writing, the contents and the presentation are adapted to the skills of the unpractised reader. Simplicity and readability are stressed. Articles are short and use simple words and uncomplicated sentencies. Page size and layout are designed to present only a few items on each page, interperpersed with illustrations and photographs. Each item is normally self-contained and printed in large type. Although news content varies, emphasis is placed on local news and problems affecting the community and its inhabitants." In summary, the report concludes: "The rural newspaper in Africa is a development oriented monthly of modest circulation aimed at a specific local readership in rural communities. Early newspapers began with the objective of literacy retention and gradually widened their development objectives over the years. Most newspapers do not own their own printing facilities but are offered access to offset presses by agreement or subcontract. At present, not one newspaper is economically autonomous."

Sporadic Efforts

Apart from the 8000 small newspaper operating in and for our countryside, some sporadic efforts have been made in bringing out monthly bulletins and periodicals for the neo-literates and others having limited reading ability. The Karnataka State Adult Education Council's *Belaku* (Kannada) (Light) is a very popular weekly for neo-literates and had been in the adult education scene since long. The Community Development Programme during the fifties and sixties accelerated such efforts. The Junagarh Community Project in Kalahandi district, Orissa, used to bring out a foolscap-size mimeographed publication called *Ama Yojna Katha* (Oriya) (Our Project News) for the social education (post-literacy) programme. Its popularity increased immediately after the first issue was circulated, but after a few years, when the community project phase was over, it had a sudden death. The Barpali Village Service, a multi-purpose village development project of the American Friends Service Committee in Barpali, Sambalpur district, Orissa, used to bring out a quarto-size mimeographed monthly called *Janiba Katha* (Oriya) (Things to know) for the social education programme during the ten-year life of the project in the fifties. The Literac House, Lucknow, has also been very active in this endeavour. There are many agencies, both government and private, which are bringing out such publications for the neo-literate learners. The Directorate of Advertising and Visual Publicity of the Government of India bring out a fortnightly wall newspaper named Hamara Desh (Our Country) in Hindi and other regional languages. The latest one is *Jago Aur Jagao* (Hindi) (Awake and make others awake), published by the Indian Adult Education Association.

After the resources consortium—National Resource Centre and State Resource Centres for Adult Education—was organised in India in the late seventies, the need for a rural press for post-literacy and follow-up programme was keenly felt all over the country. The State Resouce Centres, without waiting for any miracle to happen in this field for historical reasons, started work in this direction out of their limited financial resources and within a period of the last four to five years have come out with weekly and monthly bulletins and monthly wall newspapers which have proved their worth in the post-literacy and follow-up programme.

Belaku (Kannada) of the Karnataka SRC and *Ujala* and *Ghar Grahasthy* (Hindi) of the Literacy House, Lucknow, have continued with their success and popularity. *Chalti Jagat* (Bengali) of the West Bengal SRC, printed in newsprint in a tabloid format, gives the appearance of a newspaper and is highly popular in the rural areas of West Bengal. *Samyadini* (Marathi) of the Maharashtra SRC is equally popular. *Nattu Velicham* (Malayalam) (Light of the Village), the monthly wall newspaper of the Kerala SRC, in 'multi-colour offset', is very popular is the rural areas. *Halchal* (Oriya) (News), the monthly bulletin and *Tundabaida* (Oriya) (Word of Mouth), the monthly wall newspaper of the Orissa SRC, being the first of their kind in the State, have proved to be very successful as follow-up reading materials throughout the State. The contents of these publications are development oriented having the required readability for the neoliterate learners. Most of these publications, in spite of their success and popularity, are prototype materials and need to be mass produced by the State Governments to cater to the needs of the respective States.

A Unesco mission on Rural Press, which visited Africa in 1971 has defined the aims of the rural press as follows :

"(1) to provide reading material for neo-literates ;

(2) to ensure the continuing education of the rural masses; to give them practical advice on production and civic rights and responsibilities ;

(3) to give the masses information about events concerning their environment, their region, their nation, and the outside world at regular intervals ;

(4) to ensure a 'dialogue' between the leaders and the rural masses ;

(5) to help ensure the participation of the rural masses in the economic, social and cultural development of nation ;

(6) to proceed to set up a local, decentralised press and to show the rural masses how to express themselves in the press ;

(7) to introduce the rural masses to the reading of newspapers."

The above aims of the rural press, although orginally conceived in the African context, could be adopted for international usage.

The 'Sixth Five Year Plan (1980-85)' states : "Techniracy would be adopted as the major instrument for the apread of literacy, numeracy and practical skills relevant to the economic activities of the people concerned. It would be supported by post-literacy, continuing education through a network of rural libraries as well as instructional programmes through mass communication media, particularly after INSAT is launched to its orbit." The need for a rural press is inherent in the above scheme of the Planning Commission. With all the resources and the infrastructure we have, it should not be difficult to establish a Rural Press in India, provided it is backed by a strong political will.

A survey of the rural press in India, like the one done by Unesco in Africa, is an urgent need. This should be done by a special Working Group on Rural Press to be constituted by the Planning Commission, in collaboration wiih the Directorate of Adult Education. The other terms of reference of the Working Group, to flow from the findings of the survey, should be to formulate guidelines for the organisation of a viable rural press in India and to suggest operational structures for the rural press, keeping in view the growing needs of the learning society of the future.

Rural Press Foundation

It may not be out of place to reflect in this paper some of the organisational and management needs of a rural press in India. In view of the structure of the Indian press, its ownership pattern, and its urban and elitist orientation, it is not likely that it will soon be penetrating into the rural areas to acclerate the growth of dovelopment journalism. Therefore, an alternative organisation has to be created without any further delay. This should have been recognised as one of the key elements of our communication policy and we should have analysed the factors that impede the growth of the rural press and suggested patterns conducive to its development. However, it is never too late and the time to begin has come. A Rural Press Foundation of India should be established as an autonomous organisation, and its main function should be to facilitate the growth of the rural press in the country. Such a foundation could be funded "through a modest newsprint or other cess on newspapers—an extension of the basis on which the new Press Council is being supported." B.G. Verghese writes : "It should be possible to find ways and means of financing and circulating all newspapers, mobile libraries, slides and cassettes, and even local papers and periodicals. One means of distribution might be to organise this in certain areas through the milk collection vans that ply the countryside everyday, twice a day, at dawn and dusk, to carry milk from the villages to the dairies being established under Operation Flood. Small newspapes and journals could also club together to share certain common facilities and to pool their circulation for purposes of advertising through a special agency". Rural press will also be able to accelerate rural marketing. The agricultural input manufacturers would be too happy to advertise their products in the rural newspapers. This would be an important source of revenue, and if the advertisement copies are properly designed and worded, these would be excellent functional reading materials for the rural readers. Therefore, the rural press would gradually find its own advertisers.

A recent estimate shows that "there are over 60,000 printing presses in India ranging from large numbers of little treadle machines to high speed rotaries." What is needed for a community newspaper is a "rugged rural/small town press." Harold Thomas' in his little book "The Rural Press in South Asia", writes : "Yet the seminar had come round to a different view, that there was a future for local printing, both as an income earner and as a community service, if the right kind of small-scale printing technology could be developed. In the last hour of the seminar we had really got down to nuts-and-bolts, and were ready to establish a two-way exchange of ideas and information on technology for the rural press which could be fruitful for the future." The Printing Panel of the Intermediate Technology Development Group (9 King Street, London WC2E BHN) would be happy to know about the problems and requirements of local printing in the Third World countries. The Panel has some useful information on printing technology.

A rural newspaper needs a small team of editorial people. In Africa, most of the rural newspapers have an editor assisted by one or two whole time reporters. These are development officers working in government development departments and although were never formally trained in journalism, they were endowed with the skill in communicating with the masses and an ability to write development messages in local languages in an interesting way. The monthly bulletin *Halchal* (octavo, 4 pages) and the monthly wall newspaper *Tundabaida* of the Orissa SRC are written and edited by two staff members having sensitivity to news sense and linguistic needs of the people. They are occasionally helped by a graphic artist who designs mastheads and other illustrations when necessary. These publications are printed in a small press in Angul (Orissa), but for a large run of both the papers, the existing print shop would be inadequate. However, the press is ready to go in for an offset unit if the print order for *Halchal* becomes 100,000. The Orissa SRC is unable to print 100,00 copies of *Halchal* every month because of budgetary restrictions, but the State Government can possibly do it through the SRC. Presently a single copy of *Halchal* costs ten paise only, and its annual subscription is Rs. 2/- only, but its actual cost of production is much more than the revenue it earns. So far, it has not gone for advertisements owing to restrictions of space.

Training

The Research Institute for Newspaper Development, Madras, is interested in the growth of the rural press in India, and it is quite possible that the RIND would start its training programme soon. It is also hoped that the Press Institute of India, the Indian Institute of Mass Communication and the Journalism Departments of the Indian Universities would soon organise training programmes in the different aspects of rural journalism. And the time has come for the Directorate of Adult Education and the State Resource Centres to formulate the necessary curriculum for such a training programme and organise the same as a model for the entire country. Perhaps to start with, the Directorate of Adult Education should have a special cell for rural press immediately.

The rural press, to be able to survive and attain success, needs the communication support from the All India Radio, Doordarshan and other media and should be able to provide support to radio and television by publishing their programme schedules and highlights.

Rural newspapers have to honour the media ethics. In his autobiogeaphy, Gandhijee wrote: "The sole aim of journalism should be service. The newspaper press is a great power, but just as an unchained torrent of water submerges whole countryside and devastates crops, even so an uncontrolled pen serves but to destroy. If the control is from without, it proves more poisionous than want of control. It can be profitable only when exercised from within. If this line of reasoning is correct, how many of the journals in the world would stand the test? But who would stop those that are useless? And, who should be the judge? The useful and the useless must, like good and evil, generally go on together, and man must make the choice."□

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9

Publication and Distribution of Follow-up Materials

Follow-up materials, as the name suggests, are used in the "follow-up" stage of adult education programme. In other words, these are for that stage, which follows the first cycle of ten months, in the context of our adult education programme. The monograph on 'Follow-up Materials Development', based on the report of the Unesco Regional Literacy Workshop on the Development of Curriculum, Motivational, Instructional and Follow-up Materials, including those for Media, held in Udaipur (India) in 1979, states : "Follow-up materials should be designed to serve two broad functions that may be roughly categorised as : 1. A remedial function and 2. An extension or enrichment function." The Workshop has defined the "role that follow-up materials have to play in literacy programmes" as follows ;

"1. Filling in possible gaps in classroom instruction and remedying the defects of group instruction which could be caused, among other things, by a wrong conbination and/ or choice of methods.

2. Supplementing and strengthening what has been already learned by providing additional practice related to the lessons in the primer

3 Helping the learner to use in new conditions and new situations what has already been learned.

4. Serving as instruments to assess the progress and achievement of each indiuidual learner as well as a group of learners.

5. Strengthening literacy by the provision of opportunities for

improving reading skills, particularly speed and writing skills.

6. Utilizing literacy in varied domains of life for importing new knowledge, and creating a critical and informed awareness.
7. Providing information for developing occupational and income-generating skills.
8. Entertaining the learners while imparting knowledge.,'

Follow-up materials are of several types. It is possible to classify them into the following four categories :

a) materials used for reading, i.e., printed or handwritten materials,
b) visual materials without any verbal symbols,
c) audio materials and
d) audio-visual materials.

The materials are produced through different methods of production and some of them, to be used, need the appropriate hardware. Similarly, the type of material and its use dictate the mode of distribution. However, this paper is meant to be concerned with those follow-up materials, as categorised above, i. e., printed materials, such as posters, folders, books, bulletins and newspapers. Again, the publication of each of these materials follows a different technique of production, but, there are certain fundamental principles governing the publication of printed materials. It may be useful to discuss these principles briefly.

Layout

Edgar Dals says : "Reading is a process of getting meaning from the printed page by putting meaning into the printed page." Meaning is best put into a printed page by the choicest combination of words and pictures, the proper placement of which also makes the page look attractive. Such a placement is called layout and the type of pictures used set the style of the printed page. If it is well written and smartly edited, it won't show unless the publication looks smart too. Good publications always attract the reader.

One of the important components in a good layout is a good heading or title. It should be catchy and printed in readable large types. Use of sub-titles also conditicns the layout. It is not the written word that is important, but the word that gets read. White space properly used around the titles, sub-titles and in margins makes the page readable and attractive.

The following are the criteria of a good layout :

1. The page looks inviting and easy to read
2. The layout should call attention to the text.
3. The illustrations look well arranged.
4. Illustrations should be simple enough to tell the story.
5. The type size should be large enough to be read by eyes.
6. White space should be used to balance the various elements in the layout.

Visual Literacy

Design of follow-up materials should be based on principles of visual literacy. As Bhola put it : "Visual literacy is especially important for the literacy worker as he engages in the tasks of teaching adult illiterates to read and write. A considerable part of the burden of teaching verbal literacy is carried on the shoulders of non-verbal-mostly visual communication. Some methods of teaching people to read, depend heavily on the association of words with pictures." According to Anna Zimmer and Fred Zimmer "Many kinds of information can be communicated visually without words. When pictures of key-words. charts, graphs and other illustrations are used to teach people to read, visual literacy is helping to teach verbal literacy. Yet over and over we hear that the visual part of this teaching. and other ways of using visuals for development, are not getting through very well," It is not enough if a visual communicator draws pictures; his pictures are to be meaningful to the intended audience. He should be aware of the communication that goes on among the people and how they perceive the world visually. A visual communicator worth the name should have his own "visual inventory." Elegant designs from all over the world might not serve any purpose, if they are not understood by the people, The visual language of a successful visual messsge is always culture-specific.

This takes us to the need for designing attractive covers for follow-up books. It is common experience that materials for neo-literate learners are not well produced. Covers of the follow-up books are badly designed and printed in inappropriate colour schemes. It is a pity that often the neo-literate learners are taken for granted. These are demotivating factors and should be removed forthwith from the continuing education scene. It is possible to design good book covers, and other materials for neo-literate learners without increasing the cost of production.

Distribution

Distribution is a component of the total marketing process. It is a pointless operation to publish a book or other material if it cannot reach the intended readers in time. An ideal marketing operation seeks to provide the right books, for the right people, at the right price, in the right place, at the right time and in right quantities.

Marketing activities include market research, planned selling and distribution, and advertising and sales promotion. Market research, again, can be divided into market evaluation, distribution research, sales operation and communications research. The purpose of distribution in the marketing process is to bring the product to the door of the consumer or to a point from where the consumer can get it conveniently. Consumer convenience is of utmost importance, and in order to ensure this, the publisher has to synchronise a promotional compaign with widespread distribution of the product.

Promotion is a very important function of book publishing management, and it has three phases : pre-publication publicity, *on-publication publicity and post-publication publicity.* In our country there is a communication gap between the publisher and reader; the former complains that he is burdened with large stocks of books and the latter grumbles that books do not reach him. This is mainly due to the disorganised and antiquated system of book distribution in India.

Sellers' Market

Let us see how these concepts can be applied to the situation of follow-up materials. The follow-up materials operate in a sellers' market in the sense that the materials produced in the country are totally inadequate for the needs of the programme. Strictly speaking, the consumer is not the buyer of the materials. Material are purchased from out of the 'programme' funds and supplied to the consumers. Books and materials are purchased by libraries for ultimate utilisation by the readers. Therefore, the target audiences from the marketing and sales promotion view are the programme managers and the libraries.

Follow-up materials are produced by the State Government, State Resource Centres, Directorate of Adult Education and private publishers. The annual prize competitions for literature for neo-literates organised by the Ministry of Education & Culture, have encouraged many private publishers to enter the scene. The National Book Trust has published follow-up books in Gujarati and Oriya through specially organised writers' workshops.

The publishers of follow-up materials should develop their own publicity methods to bring the publications to the notice of the user agencies. For example, the State Resource Centres can publicise their own materials as well as materials produced by others, their monthly journals and bulletins. Rural newspapers are the most suitable media for this purpose. Publicity has to be correlated with production and distribution schedules.

The private publishers of follow-up materials should establish their own sales outlets so that the materials can be obtained without any difficulty by the user agencies. The government agencies should utilise their normal administrative channels for distribution of materials and appropriate logistics should be designed for this purpose, depending upon the model used for post-literacy and follow-up programme. The State Resource Centres, depending upon the quantities of materials they have, might think of having a few distributors in different parts of their respective States.

In point of fact, the number of follow-up books so far published in each regional language in India is rather limited with a small print-run. In Oriya, there are about 20 follow-up books published so far, each with a print-run of about 2000 copies. In 1977-80, when the SRC, Orissa, wanted to buy multiple copies of each of the Oriya follow-up books for its post-literacy programme, it was not able to get the same in adequate quantities. The private publishers were hesitant to go in for a larger print-run. An urgent need is to create an awareness in the publishers about the increasing demand for follow-up materials.

The Advisory Committee on Libraries (1957), whose major recommendations were accepted by the Education Commission (1964-66), desired that a network of libraries, including, a central library at Delhi, regional libraries in Bombay, Calcutta and Madras, a state central library in each State, and libraries at the district, block and panchayat levels should be established throughout the country to lay the foundation of an integrated library service. This is an urgent need remaining unfulfilled. Without an integrated library service covering the entire length and breadth of the country, it is extremely difficult to break the vicious circle of an illiterate environment. An integrated library service will also facilitate the distribution of follow-up materials and accelerate the dynamics of continuing education.

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10 Audio-Visual Materials for Adult Education and Library Services

Adult education accelerates the growth of a learning society. Every society has its own learning systems. As John Lowe put it : "All the agencies in society which are in a position to stimulate learning, whether or not education is for them an incidental rather than a primary aim, must be mobilized. These include, among others, the church, the mass media, publishers, libraries, museums, art galleries and community centres". The library system provides communication support to adult education. As has been mentioned in the outline of our National Adult Education Programme, the learning process of adult education "involves emphasis on literacy, but not that only; it also stresses the importance of functional upgradation and of raising the level of awareness regarding their predicament among the poor and the illiterate". The policy statement on the National Adult Education Programme emphasises that "all programmes of adult education and literacy must be followed up by effective arrangements for continuing education—which would include library services, group discussions and other forms of organised learning, reactivation of group cultural activities and festivals, and community action."

Audio-Visual Materials :

Audio-Visual materials are instructional devices. In a communication process, the distinction between a material and a medium gets blurred, and very often the media and the materials mean the same things. The communication media have been divided by Wilbur Schramm into four classes :

First-Generation Media : Charts, maps, graphs, written materials, exhibits, models, chalk boards, demonstrations, dramatisation and the like. This generation of communication media does not require any machine or electronic device.

Second-Generation Media : Text books, printed matter etc. Development of the Printing Press is responsible for the growth of this generation of media, which made possible universal public education and widespread political participation.

Third-Generation Media : Photographs, slides, filmstrips, motion pictures, recordings, radio and television. In the 19th and early 20th centuries, machine was introduced into the communication process, first to see, then to listen, and finally both to see and listen. The results of this breakthrough in communication technolology were the third-generation media.

Fourth-Generation Media : Language laboratories, programmed instruction and computers. These devices are distinguished by the fact that they depend on communication between man and machine.

The third-generation media have been of very great importance in communication, because they operate at a lower level of abstraction than books do, and permit the audience more easily to relate direct experience to the message they get through the media. By means of these media, many of the first-generation devices, notably demonstrations, dramatisations and exhibits can be very widely shared.

Audio-visual materials are used in teaching-learning situations under the assumption that "they can offer learning experiences on lower levels of abstraction than the printed word". The 'Cone of Experience' of Edgar Dale, "extending from the most direct and purposeful experiences to the most abstract ones" illustrates this assumption.

Most Abstract Experiences
Verbal Symbols
Visual Symbols
Recordings, Radio, Still Pictures

Motion Pictures
Television
Exhibits
Field Trips
Demonstrations
Dramatised experiences
Contrived experiences
MOST DIRECT EXPERIENCES

Choice of Media for Adult Education

Choice of suitable media for adult education in India raises many important issues, some of which are as follows :

- (a) Relevance of the media to the communication task ;
- (b) The degree of investment in terms of money, personnel and equipment ;
- (c) The relationship of the equipment with the teaching-learning situation ;
- (d) Care, maintenance and systematic use of the equipment in the context of the general technical capacity of the users and the audience ;
- (e) Adequacy of service facilities ;
- (f) Facilities for staff training ;
- (g) Urgency of the communication task ;
- (h) Objectives of the communication task ;

The first, second and the third generation media are relevant to the communication tasks inherent in adult education in India.

Both the first and second-generation media have been used in adult education in the past and are being used presently in the National Adult Education Programme. Primers, workbooks, supplementary readers, alphabet charts, teachers' manuals, flannelgraphs, and posters etc., are the mainstay in India's adult education programme. Method demonstrations and result demonstrations promote the functionality component of the NAEP. Dramas are used in motivating learners and making them aware about social problems.

These media have always given excellent results when their software have been developed and prepared according to the requirements of the media and needs and interests of the learners. Assessment of learners' needs comes first and based upon the findings, the software are made need-based. Usually these software are developed in specially organised Writers' Workshops participated by writers, artists and designers. Even for the method and result demonstrations, where the software takes the format of on-the-spot discussion through questions and answers, the needs and problems of the learners are constanty kept in view.

Among the third-generation media, the projected ones such as the slides, filmstrips and films support adult education programmes only in those areas where electricity is available. The design of software for these projected aids is a skilled job and their production needs the use of equipment and accessories, which are not always available for adult education projects throughout the country. Some of the projected aids have been used with advantage in adult education training.

Audio cassettes have been used in a limited way for adult education in India. It has unlimited possibilities for promoting group discussions among learners and preparation for its software affords a lot of flexibility for experimentation.

Radio

Radio has the maximum media reach in India—94 per cent of the population and 80 per cent of the area. There are more than 23 million licensed receivers besides a sizeable number of unlicensed ones. Only 20 per cent of the receivers are in the rural areas having 84 per cent of the population. The Unesco norm is one set per family; but in India we have about 26 persons per receiver.

Considerable work has been done in India, since 1956, in developing radio for service of adult education. Even before 1956, a small beginning was made in this direction through the organisation of about 200 listening clubs.

The experimental Radio Rural Forums, sponsored and financed by Unesco, were organised in the then Bombay State (now

Maharashtra). The broadcasts were the responsibility of the All India Radio, Pune. Twenty programmes, broadcast twice a week, were specially designed and produced by a team of producers on the advice of a committee of subject-matter specialists. The programmes were mostly on agriculture but health education, social education, cooperation, village industries and the functioning of village councils were aslo included. Various formats were employed to make the programmes attractive as well as effective. Discussions, interviews, dialogues, dramatisation, features, folk songs and straight talks have been tried depending upon the programme contents. Folk ballads and plays for conveying technical information have been successfully used. According to an evaluation of the programme formats, "features were the most useful means of communicating with rural people. Discussions came next, especially between experts and practising formers. Villagers like to listen to their own kith and kin, they have more faith in broadcast when they hear one of their own people talk about his experience. Interviews with experts and dialogues are also effective, but straight talks by experts especially if they are poor speakers, have the least response. However, in features, unwarranted duplication of voice and unnecessary use of music and other effects should be avoided because they tend to confuse the unsophisticated rural listener. Script writers and producers of rural programmes are sometimes surprised to find that certain feature techniques which have won appreciation from townsfolk fall completely flat with rural listeners."

The success of the experimental Radio Rural Forums encouraged the All India Radio (AIR) to spread the programme all over the country in 1956. In 1966 AIR began a new service called Farm and Home broadcasts. Both at the AIR Headquarters and at the various stations, Farm and Home units have been established to 'provide information and advice on fertilizers, pesticides, implements, seeds and other items of interest to farmers through the rural prgrammes of stations located in the intensive agricultural development areas'. The Farmers Functional Literacy Project sponsored by UNESCO/FAO/UNDP got a lot of help from the Farm and Home broadcasts.

Since the launching of the NAEP in October 1978, each AIR station is broadcasting special progarmmes for adult education besides its regular programmes for farmers, women and youth. In every State. AIR has established a 'School of the Air' to educate farmers on improved methods of farming. The Calcutta Station of AIR has been able to correlate the broadcasts with printed materials which reach the intended audience sufficiently in advance. When the programme is on air, the farmers have the books with them; and they read while they listen and listen while they read. This is Indian bradcasting's best contribution to the NAEP.

An experienced broadcaster and a former Deputy Director-General of All India Radio, Miss Mehra Masani says : "Our centralised programme is irrelevant to the need of many parts of the State. Farmers like programmes which tell them what to do and how to do it in the form of informal conversations or questions and answers. Such broadcasts can only be planned and transmitted locally for each homogenous agricultural region with a common language, common crop, similar weather conditions, marketing facilities and so forth. The farmers' preference for field-based programmes has been noted earlier. This cannot be met from the studies of the regional station. Nor can the stations afford the transport for covering all the districts for such field-based programmes. A local radio station could get farmers and others to come to it for recording their views, suggestions, and questions."

The Committee on the Autonomy of Akashvani and Doordarshan, popularly known as the Verghese Committee, has proposed franchise radio and television stations, which can be instrumental in taking the development message to the different areas of the country. In the words of the Committee, "The main task for these franchise stations would not only be to bring variety and innovation to programming, but also to give stimulus to educational and extension broadcasting. They would enhance participation and access and involve young people in broadcasting as well as in development of hardware and software systems and of communication policy." For local coverage a Frequency Modulation (FM) transmittor is extermely suitable. According to the prototype designs of the Pune University Physics Derartment such a transmitter would cost about Rs. 10,000/- and a small transistorised receiver would cost Rs. 50/- only.

Television

Television service began in India in 1959, as an experiment to train personnel and to find out the contribution of TV in community development and formal education. Its telecasting range was about 40 Km. around New Delhi, and 100 teleclubs were organised for viewing the programmes and discussing their contents. There were two weekly programmes of twenty minutes each. By 1970, the total duration of the service was three hours and there were the additional weekly agricultural programmes called 'Krishi Darshan' of 20 minutes duration. Today there are eleven television stations in India and each one telecasts daily programmes on agriculture, adult education and rural development.

The Satellite Instructional Television Experiment (SITE) undertaken during 1975-76 was a breakthrough in Indian television. Production of TV programmes for SITE was undertaken in four different studios, with provision for introduction of decentralized inputs from different locations. SITE also undertook TV programmes for rural audiences in 2400 villages in 6 clusters all over the country. Software production preceded preparation of audience profiles, pre-testing in terms of suitability of programmes and their formats and this was done jointly by AIR's producers and ISRO's social scientists. SITE had programmes on agriculture, health, family welfare, adult education and education, besides regular entertainment programmes. The cost of software production was one lakh rupees per village.

During the post-SITE phase, all the the Television stations have been producing programmes on adult education.

Our national press has just become sensitive about its role in disseminating information about the NAEP. Rural newspapers are yet to be published and the regional language newspapers reaching the rural areas do not interest the neo-literates.

The impact of films on our people is well known. After the success of Shyam Benegal's Manthan, which deals with a co-operative, our film prodcers have now begun to show interest in adult education themes. Sarat Chandra's Pandit Mashai is an excellent example. There are 9000 theatres, including the touring talkies, in the entire country.

Our folk media of communication, such as the Jatra, Pala, Kavigan, Daskathia, Harikatha, Burrakatha, and Nautanki, etc., are yet to be used consistently and effectively for adult education.

Library Services

In a learning society, the library system functions as a learning resource centre, but to-day there are very few full-fledged learning resource centres in the world. Audio-visual materials help the library system in developing its resource base for accelerating self-learning. All the audio-visual media suitable and effective for adult education, as described earlier, can be used for library services with the following objectives :

(a) To promote public relations between the library and its publics;

(b) To promote continuing education activities in the library and

(c) To enable the library to function as a learning resource centre.

The Advisory Comittee on Libraries (1957), whose major recommendations were accepted by the Education Commission (1964-66), desired that a network of libraries, including a central library at Delhi, regional libraries in Bombay, Calcutta and Madras, a state central library in each State, and libraries at the district, block and panchayat levels should be established throughout the country to lay the foundation of an integrated library service. This is an urgent need remaining unfulfilled. Without an integrated library service, covering the entire length and breadth of the country, any discussion on the use of audio-visual materials for library services would appear out of place.

Public Relations :

A library is a community institution and caters to the needs of its publics. Therefore, through adequate and well planned public relations activities, it should establish and maintain a mutual relationship between itself and its publics. Some of the PR activities, which a library can easily organise, are as follows:

(a) *Announcements regarding new additions to the library*—An attractive bulletin board on which hand-drawn posters, notices and book jackets can be easily fixed, becomes a good device. Its layout and colour scheme should be bold and imaginative so that it catches the attention of the visitors to the library.

(b) *Announcements regarding important events in the community*—Another bulletin board, with photographs, newspaper clippings, notices and hand-drawn posters should be used for this purpose. Its layout and colour scheme should be equally attractive. This bulletin board could also be used for announcing important programmes to be organised by the library.

(c) *Community listening/viewing*—Every library should have a community radio receiving set and, if covered under TV, a television receiver, so as to enable the visitors to listen to the various broadcasts and view the telecasts, if possible.

(d) *Film Shows*—Organisation of filmshows is an important PR activity. Feature films, documentary films and educational films should be regularly screened for members of the library.

(e) *Readers' Forum*—Readers' Forums should be regularly organised to discuss reviews of important books and articles and other matters of interest.

(f) *Library Bulletin*—A bulletin to be published by each library is an effective PR organ and it should contain articles, notes, book reviews and book announcements etc. A library at the district or block level can produce it by using a duplicating machine.

Continuing Education

Continuing education promotes learning society and is in turn promoted by it. Each is both an input to and an output of the other. In the context of NAEP, to start with, the post-literacy and follow-up activities constitute the continuing education phase. The entire library system has a key role to play in the post-literacy and follow-up activities. The National Board of Adult Education's Committee on Post-literacy and Follow-up Programmes, while discussing on 'Communication Choices' in its preliminary report, has recommended as follows : The post-literacy and follow-up programmes in the past, rare though they were, had tended to get confined to post-literacy and public library types of activities. Although these activities would continue to be important, the various other means of communication must also be harnessed for creation of a dynamic learning environment. Therefore, in addition to the printed word, emphasis must also be laid on other available means like (i) traditional and folk forms of communication—such as puppetry, folk theatre, Katha; (ii) sophisticated technological media—including radio, TV, films, slides and (iii) group discussions and other means of group action—which may include sports and games, village planning, social service activities for improvement of the environment, etc." The Committee has suggested six models for organising the post-literacy and follow-up programmes, as follows :

Model—I : Village Continuing Education Centres
Model—II : Continuing Education at AE Centres
Model—III : Mobile Library and Continuing Education
Model—IV : Diversification of Existing Village Libraries
Model—V : Need-based Continuing Education Courses
Model—VI : Follow-up Activities through Students

In models I, II, III and IV, library facilities are envisaged for neo-literates.

Libraries at the various levels, besides keeping books and literature for the neo-literates, should be able to organise the following activities, with the help of the appropriate audio-visual materials, for promoting continuing education activities.

(a) *Group discussions and lectures* supported by charts, posters, flash cards, flannelgraphs, films, filmstrips and slides, leading to functional development and social awareness. The topics for group discussions and lecturers should be relevant and timely.

(b) *Radio-listening and Tele Clubs*—Every station of Akashvani and Doordarshan is generating programmes on adult education and these programmes and the local news broadcasts/telecasts are to be listened to/viewed by the intended audience. Organisation of such clubs by libraries would go a long way in accelerating continuing education. Interesting radio programmes could be recorded in cassettes for future consumption.

(c) *Exhibitions*—Each library should be able to organise exhibitions of new books, photographs on important events, demonstrations, scientific and natural phenomena etc, with the help of ihe Krishi Vijanan Kendra, wherever possible.

(d) *Reading Clubs*—All the neo-literates should be encouraged to use the library and take the books and literature meant for them. It is better to have in some libraries special counters meant for them. They should also be encouraged to form a reading club of their own so as to discuss and talk among themselves their opinions about the books read by them. The local adult education worker should be able to help the library in organising this important activity.

Learning Resource Centre

The role of a library as a learning resource centre can not be overemphasized, and it should have all the facilities which a learning resource centre might offer. These should include the whole range of audio-visual equipment and materials, including microfilm readers, photo-copy machines and programmed learning materials. A good learning resource centre should have a language laboratory and it should also have a collection of folk songs and mass songs on tapes and/or cassettes. It should have a complete documentation on the folk art, folk festivals, fairs, folk dances and other folk forms preserved in the printed media, photographs, slides, filmstrips and films. A learning resource centre should have a hobby section where those who are interested will be able to pursue a particular interest. It could also establish permanent exhibits on the local flora, fauna, agricultural practices and industrial products. According to John Lowe, "It is not original to suggest that libraries, museums and art galleries should serve not merely as repositories for books, old artefacts and pictures, but that they should play a positive educational role. Moreover, there have always been librarians and curators who saw themselves as educators. What is novel about the period since 1960 is the revolution in the layout of many libraries, museums and art galleries, and the number and variety of schemes for linking their activities more closely with those of adult educational and social agencies. Besides lending books, many libraries now also lend slides, reproductions of pictures and tapes. Many libraries, museums and art galleries have also become cultural centres."

This paper has shown how a library system can provide communication support to adult education. An illiterate environment is not conducive for adult education. An effective library system breaks the vicious circle of an illiterate environment.

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11

Adult Education Software for INSAT

The Eighties and the succeeding decades will be the communication decades, with satellites orbiting the sky and computer terminal facilities available in many affluent homes. There has been a giant leap for mankind in space exploration during the last decade and there will be a very long hop for television in the coming decade.

Satellite communications are the outcome of spectacular developments in two main areas; space technology and communications technology. Satellites could be placed in orbit through the available rocket power, but in the absence of efficient communication with the space craft it would be of no practial value. The invention of the transistor in 1948 accelerated the development and innovations in electronics and eventually both space technology and computer technology developed beyond imagination.

Artificial Satellites

Arthur C. Clarke, a young British radio expert and science writer, in his prophetic article "Extraterrestrial Relays", published in the Wireless World, of October 1945, introduced the novel idea of providing artificial satellites, through the application of rocketry and microwave techniques, in stationary orbits around the earth to function as relays for transmissions from earth. During the late forties and early fifties, attempts were made to use the moon as a reflector for radio and radar communication messages. In the late fifties, the space era began with the experiments using artificial satellites. Clarke's original idea was to place satellites into orbit at an altitude of 36,000 km. in the equatorial plane, and this offered greater possibilities for communication purposes. Such a satellite in this orbit revolves around the earth in about 24 hours, which is the speed of the earth itself; and therefore, always keeps the same position relative to the earth's surface. This is called a synchronous satellite and appears to have a fixed position in the sky. The NASA ATS-6 Satellite, used by India during the SITE year (1975-76) was a satellite of this type.

The late Dr. Vikram Sarabhai. who was the chairman of India's Atomic Energy Commission and Secretary of the Department of Atomic Energy, while commenting upon the development of Satellite Communication, had said : "The advent of synchronous communication satellites has a special relevance to developing nations which have not still acquired an extensive infrastructure of telecommunications with older technologies. Even though an optimum system in the future is expected to have ground telecommunications as well as satellite telecommunications, there are unique opportunities for optimising a system in respect of its cost and effectiveness where existing investment is relatively small. India can profit from the situation, provided it can use satellite communication for its national needs meaningfully and with imagination."

At the UN Conference on the Peaceful Uses of Outer Space held at Vienna, in 1968, the late Dr. Sarabhai had observed : "A developing nation following a step-by-step approach towards progress is landed with units of small size, which do not permit the economic deployment of new technologies. Through undertaking ventures of uneconomic size with obsolete technologies, the race with advanced nations is lost before it is started . . . . ' Developing nations such as India have the possibility of effectively using space commuuicotions for national need." He had further remarked : "We often meet with a lack of self confidence to pursue major tasks involving complex and unfamiliar technologies . . . anything which is innovative . . . is automatically regarded with suspicion. The administrative structure of Governments in many nations is dominated at the top, not by technocrats, but by professional administrators, lawyers or soldiers, who are hardly likely to provide the insights, experience and the first-hand knowledge of science and technology which are necessary at the decision making level. Moreover, advanced nations often play a negative role in their interaction with the developing countries. There is seduction by their political and commercial salesmen who dangle now gimmicks, which they suggest should be imported . . . . "

Direct Broadcasting

Various UNESCO studies have shown that the great advantage of direct broadcasting through space communication will be its ability to deliver programmes for beyond the radiating capacities of the terrestial television systems which in most cases are able to serve only the centres of major population. Educational television through satellite was found to be the most promising way of improving the quality of educatio in rural areas. where population was dispersed. It provides the solution to one of the crucial problems of the developing counties, which is the ever widening gap between the educational attainments and opportunites of rural and urban people. The space communication systems designed for direct community reception are so flexible that these offer a wonderful opportunity to tackle two most difficult problems of education—the low level of training of teachers and the growth of illiteracy. These systems become economical only when they address themselves to a vast audience.

According to E. Lloyd Sommerlad, formerly of UNESCO, "While we are so concerned about ways in which satellites can provide exciting new systems of distribution for television transmissions and multiply the audience, it is easy to overlook the fundamental question of programme content. We might echo again the memorable statement made over a century ago by the American essayist Henry Thoreau when the telegraph was installed in the United States linking both sides of the continent. At that time he said : "We are in great haste to construct a magnetic telegraphy from Maine to Texas; but Maine and Texas, it may be, have nothing important to communicate." Times have changed of course, but communication satellites are only means to an end—they are carriers of the message—and the greatest problem of all is likely to be the provision of the 'software'."

Television and Development

India has been interested in the practical uses of space communications technology since the Sixties. In 1965, the Government of India appointed an Expert Committee, headed by A.K. Chanda, a former Auditor-General of India, to study the mass communication needs of the country. This Committee, in its report, submitted in 1966, recommended that by the end of the 5th Five Year Plan in 1979, TV Service should be available in all towns with a population of 100,000 or more, and for at least 250,000 villages, thus covering 47% of the total area of India. The Committee did not recommend communication satellite at least for the first phase, though it appreciated its advantages form the technical and cost angles. However, it had some reservations as the satellite would be able to handle only national programme and not the different regional language programmes. Soon came the UNESCO Mission at the invitation of the Government of India. The Mission felt that Television could accelerate the development process, if it could be used as a powerful medium of communication to link together the rural communities and the distant population centres. The Mission recommended a synchronous satellite instead of the conventional microwave system in which the TV signal is transmitted from tower to tower.

The Agricultural Television Programme was organised in 1967 under the auspices of the All India Radio, in collaboration with the Indian Agricultural Research Institute, New Delhi and the Delhi Administration. Community Television Receiving Sets were installed in 80 villages around Delhi. In one of his basic documents entitled "Television for Development", the late Dr. Vikram Sarabhai wrote : Parallel with this, a comparison of the cost of deploying four alternative systems for providing Television on a national scale was made. The following four systems were studied and we find the benefit of experience shared by the National Aeronautics and Space Administration of USA and participation of specialists from many Indian establishments and departments of Governments.

"1. Conventional rebroadcast stations with terrestrial microwave interconnections.

2. Direct broadcast from synchronous satellite.

3. Conventional rebroadcast stations with satellite interconnection.

4. A hybrid system involving direct broadcast to some areas and 5 rebroadcast stations."

"The study carried out quantitatively was based on best current estimates. It indicates that alternative (4) would be one-third as expensive as alternative (1). Indeed, all the half million villages of India can be provided television through community viewing centres and a national hook-up for a total cost of about Rs. 160 crores under alternative (4)." The general conclusion was that it was technically feasible to launch a space communication experiment in India with a sutiable satellite such as one of the 'Application Technology Satellites' (ATS) which was then being developed by the NASA of the USA. Thus, the idea of the SITE (Satellite Instructional Television Experiment) was born.

According to the Memorandum of Indo-US Understanding, signed between the Department of Atomic Energy (DAE) and the National Aeronautics and Space Administration (NASA) on 18 September 1969, the primary instructional objectives of SITE were : "contribute to family planning objectives, improve agricultural practices and contribute to national integration" and the secondary objectives were : "contribute to general school and adult education, contribute to teacher training, improve other occupational skills and improve health and hygiene."

The experiment was carried out in three phases; under the first phase, lasting for three years, the earth station at Ahmedabad was upgraded with necessary improvements, research and development continued on the design, prototyping and manufacture and testing of ground segment components and the Indian technicians involved became familiar with space segment characteristics. During this phase, NASA supplied the technical assistance nd advice.

The second phase was an intensification of activities during the first phase, including the Delhi TV experiment, and it provided new centres of expertise, uncovered and solved operational problems, permitted experiments with different approaches and developed a cadre of personnel for the third phase in programming as well as deployment and maintenance of TV receivers. This phase was for two years.

The third phase was the actual use of the ATS-6 Satellite in beaming instructional TV programmes to 2330 villages in India and lasted for one year, i. e., from 1 August 1975 to 31 July 1976.

Some of India's other achievements in Space Communication are: Aryabhata (1975). Bhaskara (1979), Rohini, through SLV-3 India's first Satellite Launch Vehicle (1980), APPLE, India's first communication satellite (1981) and Bhaskara-II (November 1981).

INSAT

With the eperience gained from APPLE, which has completed two years in its orbit on 19 June 1983, a stage has been set for the best utilisation of the INSAT (Indian National Satellite). The first generation Indian National Satellite System, INSAT-1, was designed to consist of two satellites, INSAT-1A, launched into its orbit in April 1982, and INSAT-1B, to be launched in August 1983. "INSAT-1 is a multipurpose operational Satellite system for domestic telecommunications, meteorology and nationwide direct community TV broadcasting to rural communities and radio and TV programme distribution for rebroadcasting/networking." INSAT-1A became operational for TV broadcasting on 15 August 1982, but soon became disfunctional owing to non-deployment of its solar sail. It was of the following dimensions : length from the tip of the solar sail to the end of the solar array was 19.4 meters; the main body was 2.18 m x 1.55 m × 1.42 m. It was located about 36,000 km above the earth at 74 degree E longitude. INSAT-1B, originally planned and designed to be an active in-orbit spare, will now be the only Satellite of the INSAT-1 System, and will be similar in every respect to its unlucky predecessor.

The telecommunications capability of the INSAT-1 System will be utilised through thirty one earth stations—twenty eight fixed and three transportable. The system is supposed to provide 8000 two-way long distance telephone circuits. The meteorological component of the system becomes operational through the Meteorological Data Utilisation Centre (MDUC), Delhi, and the Secondary Data Utilisation Centres (SDUC) at various places in the country. The radio and television component of the INSAT-1 System provides direct TV broadcasting to community TV receivers in selected villages, potential of nationwide Television coverage in one step, national networking of terrestrial TV transmitters and radio programme distribution. In short, it is going to revolutionise our entire communications system.

Eighteen districts in the six states of Andhra Pradesh, Bihar, Gujarat, Maharastra, Orissa, and Uttar Pradesh are going to be covered under direct TV broadcasts through INSAT. The three districts in Orissa are Dhenkanal, Sambalpur and Bolangir. The television programmes provided through INSAT are supposed to be "essentially rural based having a decentralised programme pattern with greater relevance to the target audiences". These include topics such as agriculture, family welfare, formal and non-formal education, national integration and health and hygiene. The programme pattern envisages a 45-minute telecast in the morning for school children and an evening transmission of 90 minutes for adults. The evening transmissions will have two weekly slots of ten to fifteen minutes each for adult education. Agriculture and other developmental topics are being covered through separate slots. As N.L. Chowla put it : "There are some specific reasons why television transmission through the INSAT will be watched with maximum interest. No other country has ustilised Satellite TV, and at that extensive scale, 'as aid to economic and social development particularly in rural areas' and 'to promote national and emotional integration' as we have planned for". This is indeed a challenging task both in the application of sophisticated space technology and in the planning, production and utilisation of meaningful software.

Adult Education

Adult education, when translated into operational terms, is reduced to a series of communication tasks; and therefore needs the support of the communication media, materials and structures. Its three facets—literacy, functionality and awareness—are best promoted through communication. Adult education, throughout its growth in India has influenced and has been influenced by the international developments in this field. According to Gandhi and Tagore, man is in the centre of all development and "adult education is the education of the whole man." The late James Robbins Kidd, while discussing India's new Adult Education Programme had said : "For example, it is possible to dismiss the Gandhian Basic School, as some Indians do, as something that was never seriously attempted, but it does have many implications for non-formal and adult education and identified principles and processes that might be relevant not only in India, but in other developing countries." In the Recommendation on the Development of Adult Education. adopted by the 19th General Conference of UNESCO, held in Nairobi in 1976, the term "adult education denotes the entire body of organised educational processes, whatever the content, level and method, whether formal and otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adult by the society to which they belong develop their abilities. enrich their technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behaviour in the twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development." The recommendation emphasises that adult education should not be taken as an entity in itself, but as an integral component of a global scheme for life-long education and learning. In accordance with the principles contained in the recommendation, the Government of India initiated a series of measures strengthening its national strategy for the development of adult education. According to a UNESCO document (20 C/23 Add. 2 dated October 1978) containing India's report to the 20th Session of the UNESCO General Conference held in 1978, it is said that the recommendation on the development of adult education adopted by the 19th Session of the UNESCO General Conference finds expression in the Policy Statement on Adult Education, issued by the Government of India, and in the National Adult Education Programme, which was planned in pursuance of this policy for implementation and launched on 2 October 1978. India's efforts in this followed an international mandate, and the contents of its adult education programme were evolved out of its own needs ane experience as well as the examples of other Third World Countries. This was a historical necessity.

The Planning Commission document entitled "Sixth Five Year Plan (1980-85)" states : "The Sixth Plan lays emphasis on minimum essential education to all citizens, irrespective of their age, sex and residence. The approach to achieve this objective would be characterised by flexibility, intersectoral cooperation and inter-agency coordination. Technicracy would be adopted as the major instrument for the spread of literacy, numeracy and practical skills relevant to the economic activities of the people concerned. It would be supported by post-literacy, continuing education through a network of rural libraries as well as instructional programmes through mass communication media, particularly after the INSAT is launched to its orbit." Adult Education is an essential component of the basic minimum needs programme for the 6th Five Year Plan, and has been included in the revised 20-point Economic Programme of the Prime Minister.

Communication Support

Adult education needs communication support and the communication media also need the support of adult education so that the messages are understood, perchived and favourably treated by the intended audience. Unfortunately, this mutual relationship between adult education and media has not always been very healthy. The Report of the third International Conference on Adult Education, held in Tokyo, in 1972, states : "Thanks to the rapid technological development of modern means of communication, it had become possible to reach far larger numbers of people than anyone had imagined even a few years ago. To the mass media a major role should be ascribed in arousing among people everywhere an awareness of the common social, economic and cultural forces affecting their way of life. The media could provide not only formal instruction, but valuable information and cultural enrichment." The report further states : "Yet almost nowhere had the full potential of the mass media been enlisted in the service of adult education. On the contrary, the media were often used for anti-educational purposes. The basic problems were how to exploit the media with a view to extending educational opportunities, how to reduce cost without lowering the quality of learning and management of the educational process." However, adult education needs a vigorous communication support in the following areas :

(a) Objectives of the adult education programme have to be carried to the people in the shortest possible time. This is a public relations function.

(b) People, particularly the intended learners, are to be motivated to actively participate in the programme.

(c) Awareness of the environment and other problems is to be created.

(d) The massive training programme for the adult education personnel is to be reinforced by the communication media.

These communication tasks can be very effectively performed through the electronic media, both radio and television, and particularly television.

The Third World experience in using TV for literacy and adult education is very interesting. The expansion of TV has become so rapid that there are some 32 separate TV services operating in Africa, 118 in Asia and 75 in Latin America.

According to a UNESCO survey on Radio & Television in Literacy, conducted in 1969, it was seen that the second half of the Sixties saw the expansion of TV services for adult education. Twentyone countries were using TV for motivation/ information, reading, word building, and writing. Short films were being used for motivation, and information, and animation films were being used as a break between the different parts. Word games, crossword puzzles, captions, and all kinds of non-projected visual aids were being used in the TV programmes. The "Television Literacy Compaign" of Yugoslavia, during its 7-year life span, used the following series : 'The Television Spelling Books' to encourage the learners to learn to use the written language, the four operations of elementary arithmetic, history, marriage caunselling, and other information. Tunisia's 'Teaching of Adults and Social Education by Radio and Televison', organised by its Institute of Adult Education and Tunisian Radio and Television, had the following used in TV: reading, arithmetic, history, geography, civic or religious instruction, family milieu occupational and social milieu and the study of world problems. In Algeria, TV was used for direct literacy teaching through suitable film programmes in the various formats presented by a screen teacher. All these countries used TV very systematically as a communication support and the average duration of a programme was about thirty minutes. In the Sixties educational TV programmes were organised in Niger, Samoa, Colombia, El Salvador, Senegal and Ivory Coast. According to a recent study entitled 'The world of Literacy-Policy, Research and Action' sponsored by the International Council for Adult Education, "However, the enthusiasm for Educational Television (ETV) Services as a direct teaching too, ("the talking face") has waned in the Third World and many countries have abandoned or restricted ETV in favour of lower cost media system such as radio, film and print. Tanzania deliberately decided not to invest in a television network. The decisions to limit ETV have been based on experience. Getting the hardware, production and transmission services in operation was a one-shot activity for which funding was available. But international agencies were less willing to invest in the necessary facililies and training for

for ongoing, indigeneous programme production. More than hardware was needed."

SITE

India's Satellite Instructional Television Experiment (SITE, 1975-76) is considered as a very costly experiment in mass communication. According to Ramesh Chander and Karnik, "We in India, therefore, look on SITE as a gigantic case study to find answers to technical and programmatic problems in the planning, designing, organising and creating a viable system of educational broadcasting by Satellite." 2330 villages in 20 districts and in six states were covered under SITE. Programmes were produced to be telecast in four languages : Hindi, for Rajasthan, Madhya Pradesh and Bihar; Oriya for Orissa; Telegu for Andhra Pradesh and Kannada for Karnataka. As only two and one visual channels were available, programmes were produced to go simultaneously into two language versions with one visual. M.P. and Orissa, Bihar and Rajasthan and Andhra Pradesn and Karnataka, were the same visual units. The three base production centres had to constantly keep these requirements in view while producing programmes. The cost of software production alone was Rs. 3000/- ($ 333.00) for every minute of cinematic programme telecast through SITE. Out of the 1320 programme-hours requiaed by SITE, the actual precanning to be done was for about 11(4 hours; and the cost of its production was Rs. 209.5 million ($ 23 million).

The Social Evaluation Report on SITE has many lessons to offer It tells us that on the adoption of agricultural practices, there is some gain, although it is not statistically significant. In regard to adoption of health innovations, the Report states : "Perhaps one year is not enough to adopt innovations. More important, than adopting of innovations, which were taken up for measurement depended on the availability of these innovations. So, perhaps availability was also a limiting factor which resulted in modest gains." P.C. Chatterjee, a former Director-General of All India Radio, says : "In short, in the practical aspects of nation building on which programmes were telecast during SITE, viz., agriculture and animal husbandry, heath and nutrition, family planning and telecasts for schools, we find that the gains were rather meagre." Chatterjee gives two explanations for this. One was the too short duration of the experiment and the other was the inadequate supporting infrastructure necessary for change.

Software

Our own experience of SITE and whatever we have learnt from the experiences of other countries lead us to a realisation that planning for software production is crucial to the utilisation of mass media for development. From the angle of Programme Evaluation and Review Technique (PERT), software planning assumes considerable priority. As Agrawal put it. "One of the major lessons of SITE is that the planning of software rather than hardware requires more time. Hence, the planning for software aspects must start many years prior to the planning of hardware aspects."

A systems approach to software planning is desirable. In the systems approach, any productive system is viewed as a whole so as to examine how its process functions with reference to its resource inputs and its desired outputs. Systems analysis, to start with, defines as clearly and precisely as possible the desired objectives. Then the alternative ways through which these objectives can be fulfilled are identified, and after examining the various advantages and disadvantages of each of the alternatives, the most effective, feasible and economical alternative is selected. Then a plan of action, including a time-table, is elaborated, and the actions to be accomplished during each phase of the plan of action are defined. All the resources that will be required for the accomplishments of the actions, the nature and timings of results anticipated and the ways and means of evaluating progress and if necessary, to make the necessary changes are also elaborated. Thus, systems analysis perceives a 'system' as a dynamic well organised and integrated process having the following four main elements : objectives, inputs, process, and outputs. In analysing a TV system, the sending and receiving ends are carefully studied and the following four components are also examined with great care : (i) technical (ii) contents, (iii) supporting communication and evaluation and (iv) training provisions.

The technical component relates to hardware. Contents are most important for software planning. By contents we mean not only the contents of the programme to be broadcast, but the supportive learning materials that will be needed at the receiving end to make the programme utilisation most effective. Supporting communication and evaluation need a continuous flow of information, ideas, and assistance among all the main parties invovled. For example, the prospective users should have a say in the software planning and preparation and in its utilisation. There should be a continuous consultation and coordination among all the people whose efforts make the system work—educational and media policy makers, educational programme producers, technicians, hardware people, and researchers. The human resources in a media system, such as the TV, are more critical to success than the technical resources. Therefore, the training and development of human resources assume a lot of importance. Prof. Yash Pal, writing for the Seminar, (1978) says : Thus, while we stand at the beginning of a communication explosion, with INSAT coming in the beginning of 1981, we also stand at a critical juncture where the decisions we take will determine the pattern of communication in this country for a long time to come." He continues : "Soon after the Satellite comes in, the two broadcast transponders available will attract the attention of broadcasters and technologists and the easiest thing to do would be to use them first for linking the TV transmitters in all large cities with very little additional cost. This will immediately provide the capability for showing the Republic Day Programme, for relaying speeches of political dignitaries, for showing cricket and hockey test matches, a movie a day from one station or another, magic shows, perhaps some music and dance festivals also. The specialised urban programme including movies could be seen perhaps everyday and pretty soon all the capability of these broadcast transponders, which in early good faith were meant for rural communication, would be saturated. And that would be the end of the use of INSAT for rural communication." These warnings sounded by Prof. Yash Pal should make us alert.

Software planning is guided by our national commucation policy, and in the case of INSAT, it is governed by the sectoral policy decisions related to INSAT.

Production Process

Television is the most complex of all educational mass media and the production process of television programmes starts after the curriculum planning process is complete. The programme preparation phase includes development of script and materials, compilation of inserts and illustrations leading to the final production of recording of programmes. Therefore, the task of the producer in not so easy. He has the overall responsibility for the programme, prepares the programme format, controls the selection of script contents, visuals and casts, and coordinates the work of the production unit. He should have knowledge of the subject matter, although he can always take the advice of a subject matter specialist.

For producing adult education software, the producer shoul ideally have sound knowledge of adult education. In the following, four situations are visualised having in each case a dfferent type of producer.

A—Producer is adult educator with TV background

B—Producer is adult educator without TV background

C—Producer is TV expert with adult education background

D—Producer is TV expert without adult education background.

In 'A' and 'C' above, the producer is also able to direct the programme, because of his knowledge of the media and the subject-matter. But, within adult education itself, the programme can be on agriculture, health, social customs, family welfare and so on, and it is impossible for any producer to have in-depth knowledge in all these fields. Hence the need for subject-matter specialists. But the producer has to be sensitive to the need of the audiences. In an audio-visual medium like the TV, it is the language and the visual used which matter. To quote Agrawal again, "Inappropriate use of telecast language was a single most important factor that affected the comprehension of the programme especially in Hindi speaking clusters." People like to hear the language they speak, but very often this simple truth is not realised. Another important factor is the standard of visual literacy of the audience. Visual literacy helps to teach verbal literacy. There are right visuals for the right people. As Anne Zimmer and Fred Zimmer but it: "There are people who are trying their best to prepare visual message their countryman can understand. Some film makers, for instance, are saying: 'If we zoom buildings, into our people will think the buildings are falling on them. If we pan accross a landscape, they think the mountains are moving. We must find ways to make the films that they will understand.' Others are trying to identify these ways in the grophic arts. One recent study found out that, out of thirteen posters designed to assist in the teaching of literacy, all but one were misunderstood. The decision, sensibly, was to redesign the poster, not the people." Therefore, both formative and summative resarch should be utilised in the production of adult education software.

Formats

Adult education software for television can be in various formats, depending upon the suitability of the topic and the imagination of the producer. The whole range of audio-visual aids, having their recognised places in the 'Cone of Experiences, of Edgar Dale can be utlised in the treatment of the message for television. Here again, the choice of a format is determined by the level of understaing of the audience. In the Kheda experiment on attempt was made to use TV in a vigilante role "guiding the rights of the totally helpess and giving strength, where strength was needed", and thanks to the courage and innovative efforts of the Space Applications Centre at Ahmedabad, the programmes radiating from the Pij transmitter were very effective. The Seminar, (December, 1998), writes in its editorial: "Whether it is a ritual murder in a village, or the condition of bonded labour or how TV was able to force Government action on a forgotten irrigation project, and how half-inch video could simplify the entire process and how the cooperation of the pecesants should be sought and can be got, the experience must be disseminated more widely. Since we can't see the images on the screen, we thought this excellent work should at least be recorded in the pages of Seminar." The Kheda experiment was an outstanding achievement in rural communication' This was adult education supported by television and resulting in awareness and social action. There was instant audience involvement in the Kheda Projects, because of the participation of local people in the programmes. It was a successful experiment in participatory communication, and it was able to invent a system for rural India. Kheda has been able to give us deep technological, managerial and programming insights. Prof. Yash Pal hopes that "this rich experience will not become just a report to be consulted in years to come by academics, but that this experience will have a positive, definite influence on planning our future communication system."

Super-8

There is always an interaction between the hardware and the software in any communication technology and the characteristics of the former influence the software formats which can be produced. All over the world the telecine equipment is geared to 35 mm and 16 mm gauges, and therefore, the television systems use only 35 mm slides and 35 mm & 16 mm films. Production of 35 mm as well as 16 mm films are very expensive, whereas Super-8 film production is relatively inexpensive. Super-8 equipment is also cheaper than the 35 mm and 16 mm equipment, and anyone can use a Super-8 camera with a little training and practice. When the multiplexer in the telecine equipment can be geared to the rectangular sizes for 35 and 16 mm gauges, there is no reason why it cannot be adapted for Super-8. Because of this constraint, Super-8 cannot be used in TV, although in the recent years these has been a tremendons development in the Super-8 technology. Jonathean F. Gunter reports : 'There are two ways to create a television signal from 8-mm film; with a telecine film chain or with a fllying spot scanner. The best known television projector is the Kodak TVM100A (S2000). This projector must be used in conjunction with a telecine film chain in a television studio, in order to convert 8-mm film to television images. On the other hand, the flying spot scanner is an entirely self contained system, whose signal can be fed directly into a normal television set." Single concept loop films are best produced in the Super-8 guage, but so far, the TV system has not been able to make use of this programme format which has been very successful in explaining a process. Adult education, with its population education and scientific literacy components, can use the single concept short loop films to treat difficult topics, particlarly the processes, either through animation or other production techniques. The entry of Super-8 into the TV system will offer tremendous scope for praticipatory and decentralised production, besides opening avenues for a totally new film industry.

Communication resaarch has established that the multi-media package for a given communication objective always achieves the maximum gain. This becomes more relevant in the case of adult education, where the learners, having varying degrees of visual literacy and abstraction levels, when exposed to the different media, get varying degrees of media exposure. With advance planning and adequate advance preparation, it is possible to design a multi-media package to support the television programmes. The same message in the television software can be reinforced through radio, the printed media, folk media and even inter-personal media like group discussions. A very high degree of coordination is necessary; it is possible and a system can be easily designed for this. The Natiodal Resource Centre for Adult Education and the State Resource Centres can play their role effectively in becoming active partners in the multi-media project for adult education. All the user agancies have a major-role to play in this effort, so that their respective communication efforts are channelised in a coordinated manner for achieving the maximum gain. The planning for this needs the systems approach.

Utlisating

In a communication systsm, it is the receiver who conditions the sender. The situation becomes more crucial when the sender does not have face-to-face interaction with the receiver. In the case of television, what happens at the receiving end is as important, or even more important, as what is contained in the software. Therefore, proper software utilisation at the receiving end, particularly in the case of community viewing, assumes urgency. The TV system has no control over it, because this area of work is looked after by another agency. Experience has shown that owing to power failure, TV sets often become inoperative. So, even a strong television signal carrying an interesting and educative message gets completely blocked. This apart, the educational side of the utlisation has to be ensured; and here the adult education personnel have to come to the picture. This is an area which needs urgent attention, otherwise with all the hardware and software resources at our commend, and with all the refined tools of formative and summative research, we would be nowhere. It needs special talents and efforts to introduce all the three elements of information, education and entertainment into the community viewing situation.

Amadou-Mahtar M' Bow, Director-General of UNESCO, in his foreword to 'Many Voices and One World', the report of the International Commission For The Study of Communication Problems, says: "It is essential that all men and women, in all social and cultural evironments, should be given the opportunity of joining in process of collective thinking thus initiated, for new ideas must be developed and more positive measures must be taken to shake off the prevailing inertia. With the coming of a new world communication order, each people must be able to learn from the others, while at the same time conveying to them its own understanding of its own conditions and its own view of world affairs. Mankind will then have a decisive step forward on the path to freedom, democracy and followship." To us in India the statelliie era provides such an opportunity.

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12 Communication Technology for the National Literacy Mission

The National Policy on Education (1986) envisages that adult education would be a means for reducing economic, social and gender disparities. The National Programme of Adult Education (NPAE), conceptualised and designed as a phased time-bound programme, with a view to cover approximately 40 million learners by 1990 and another 60 million by 1995, has been suceeded by the National Literacy Mission, which is one of the five national Missions. "with a view to applying technology and scientific research for the benefit of the deprived sections of society and the areas which are critical to the country's development." It is a Societal Mission supported by a political will at all levels for the achievement of its goals. The objectives of the Mission are to impart functional literacy to 80 million illiterate persons in 15-35 age-group; 30 million by 1990 and additional 50 million by 1995. The document on National Literacy Mission elaborates functional literacy to imply "achieving self-reliance in literacy and numeracy, becoming aware of the causes of their deprivation and moving towards amelioration of their condition through organization, and participation in the process of development; acquring skills to improve the economic status and general well being; imbibing the values of national integration, conservation of the environment, women's equality, observance of small family norm, etc." The Mission envisages the establishment of a nationwide network of continuing education centres through better utilisation of the existing organisation, new institutional structures and open and distance education programmes. The National Literacy Mission "will concentrate on the 15-35 age group which is crucial for the country's development" having its focus on the rural areas, particularly women and those belonging to the scheduled castes and scheduled tribes.

Issues

The six issues identified for the success of the National Literacy Mission are : national commitment, creation of an environment conducive to learning, motivation of learners and teachers. mass mobilization and people's involvement, techno-pedagogic inputs, and efficient management and monitoring.

Strategy

The National Literacv Mission (NLM) has been designed to face the crucial and central issue in literacy, which is motivation. People's participation will be accelerated "through media and communication, creation of local level participatory structures, taking out of jathas, training of cadres of youth, etc." These efforts of the Mission go towards the creation of an environment conducive to learning. Effective people's participation is expected to increase the involvement of voluntary agencies, for which other administrative measure are to be taken. The other strategies of the Mission are expansion and strengthening of the mass movement for functional literacy, institutionalization of continuing education, particularly through the establishment of Jana Sikshana Nilayams, ensuring the availability of standard learning material and universalizing the outrearch by extending facilities for literacy, continuing education and vocational training to all parts of the country by 1990.

Anothor important strategy of NLM is to initially undertake technology demonstration in 40 districts for "development, transfer and application of techno-pedegogic inputs" and to evaluate results for application beyond 40 districts.

Achievenment of the Mission Objectives needs an effective Mission Management System, and such a system would be established so as to include "mechanisms for suitable staff selection and development, collection flow and utilization of information, systematic monitoring and mid-course corrections where necessary and impact evaluation."

Communication Components

Inherent in the Mission objectives are several communion components which enable functional literacy to be meaningful. Achievement of self-reliance in literacy and numeracy, creation of social awareness in the learners, acquisition of skills in them to improve their economic status and helping them to imbibe the necessary social values are possible through effective communication.

Each of the six key issues identified for the success of NLM is associated with communication. The most important Mission strategy, which faces the central issue in literacy, namely motivation, is a dynamic communication strategy. The other elements of Mission strategy, such as securing people's participation through media and communication, improving orgoing programmes by the application of suitable training and pedagogical innovations; institutionalizing continuing education through organisation of Jana Sikshan Nilayams and ensuring the availability of standard learning learning material are also related to communication. The entire area of Mission Management System is related to information and communication. It can be said that NLM, when translated into operational terms, is reduced to a series of communication tasks; and therefore, needs the support of the communication media, materials and structures.

Communication Inputs

A Societal Mission like NLM "depends on social mobilization, achieve participation by the potential beneficiaries, literacy workers and the whole community. The strategy for securing people's participation is a part of the total strategy for mass mobilization for the implementation of NPE."

The National Literacy Mission identifies the following communication inputs for securing people's participation :

> "—Regular programmes on radio and TV for information, motivation and active involvement.
>
> —Systematic use of the newspapers for creating a positive attitude towards promotion of literacy among the influential sections of society,
>
> —Sponsoring theatre groups to take the messages to the street corners, hamlets in rural areas and fairs, etc.,
>
> —Folk and traditional media for creation of an environment."

The Mission also highlights the importance of 'Jathas—cultural caravans for New Education' and envisages the following :

> "—Groups of teachers, students, non-student youth, artistes moving in trains, buses, bicycles, on foot for the cause of New Education, including literacy, environment, science for everyday life, women's equality and national integration.
>
> —In towns, mohallas and villages they pass, they discuss issues, counter fundamentalist, reactionary and obscurantist elemented and make the poor perceive the importance of literacy as a tool for amelioration of their plight.
>
> —Along with discussion and debate, there may be nukkad nataks, operas, improvised plays, group singing."

A Jana Sikshana Nilayam, which will be a principal instrumentality for organising post-literacy and continuing education programmes is designated as "a communication centre, where community radio, audio cassete players, TV and possibly VCR may be provided." Mass Media is supposed to supplement other programmes of continuing education.

NLM recognises the fact that spectacular developments in the field of communication technology have multiplied the linkages between education and communication. There has been a tremendous increase in the educational potential of communication. The educational system is beginning to lose the monopoly of education. Communication is becoming itself a vehicle for and a subject of education. Therefore, NLM should re-examine its communication inputs in view of the communication components inherent in it, and design appropriate and innovative communication structures and methods.

In the year 2000

Srivastava has estimated that "up to the year 2000, the number of new TV sets in the country will increase by four million annually (3 million black and while, and million colour sets)." Projecting the scenario in the year 2000, he says ; "Taking all these figures into consideration, the projected number of TV sets in the year 2000 would be 63 million, with one-third colour and two-thirds black and white. These TV sets would provide access to 378 million people. We expect that the total population of 986 million would be theoretically covered by the TV signals. Thus, the number of viewers, as a percentage of total populotion covered by the Doordarshan, would be 38-34 in the year 2000. Therefore, there will exist a wide gap between the reach of the TV signals and population having actual access of TV viewing. "NLM, in view of the above projection, should design non-broadcast mode of communtcation utilising small guage video, both half-inch and 8mm, which is being developed rapidly through research and development efforts.

Another area, which needs the vigorous support of NLM, is the rural press, whose role in promoting post-litreacy and continuing education, particularly in Africa, has been well established.

Radio has been, and is being, used for both formal and non-formal education under five categories in various parts of the world : (1) Open Broadcasting—the unorganised audience, (2) Instructional Radio-the organised learning group, (3) Radio Rural Forums—the decision group, (4) Radio Schools—the nonformal learning group, and (5) Radio and Animation—the participating group. There are certain assumptions behind each strategy, to which radio has been put to use about radio's effects, about the structure of reception and about learning and social change. NLM should evolve its own strategy of using radio keeping in view its objectives and tasks to be performed.

Distance education should be effectively used not only for promoting continuing education, but for providing facilities for the training of adult education personnel. In the U.S.S.R. distance education "was born out of the necessity to train thousands of volunteers who offered to teach illiterate adults throughout the country, in which about 76 per cent of the population was illiterate in the early 1920s. The vast contingent of 'people's teachers' were trained through specially devised correspondence courses. As a result of this massive campaign, illiteracy was completely eradicated within two decades." Here is a lesson for NLM as well as for the Indira Gandhi National Open University.

The National Literacy Mission is adynamic Societal Mission and it is hoped that the communication components inherent in it will be operationalised through the communication inputs which are already identified by it and others which are to be innovated continuously.

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13

Epilogue

1990 approaches very fast. On the New Year's Day of that year, International Literacy Year begins. And ten years from then we enter the 21st century. Where do we stand today? According to recent Unesco estimates, there are nine countries in the world having adult illiterates of over one crore each. India heads this list with 26.4 crores of illiterates.

The central and most crucial issue in literacy is motivation. It has to be remembered that literacy work, which is not a routine part of education provision, is the most difficult to be organised. Its success depends upon dedication and commitment on the part of individuals, communities and the nation.

There are numerous overlapping motives for participating in the adult education programme, but by and large, the motives can be grouped under three main categories : vocational, personal development and social relationship. Vocational motives have a strong influence on young people. Personal development influences almost everyone's motive for participation in the adult education programme. And social relationships account for a good deal of participation in adult education, particularly in the case of women, because one is able to meet others for a friendly chat after household work. Therefore, the programme should be designed in such a way that it caters to the needs of different categories of learners. Are we doing it?

Mobilisation is equally important; as a matter of fact, motivation and mobilisation are the two sides of the same coin. Mobilisation implies a sound and adequate infrastructure of men, materials and systems for literacy campaigns and follow-up activities leading to a meaningful programme of continuing education.

I would like to recall what Dr. Malcolm Adiseshiah had said on the occassion of the International Literacy Day last year. He had said : "The success of the country's adult literacy programme has thus two preconditions :

"First, the programme of literacy must emanate from the village, panchayats, blocks and districts, with Union and the State Governments giving them the finacial help and coordinative framework that they need.

"Second, there is need for continuity, for the programme with its two new components of mass literacy and National Literacy Mission and all that they involve to be separated off from the political organisation of the country, and in substance to function autonomously and hence continuously." If and when this happens, adult education would bring power to people Let us remember that without people's empowerment democracy can not survive.

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